ENGLISH FOR TECHNICAL COMMUNICATION

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To Viswamohan

Foreword

English for Specific Purposes (ESP) is a specialist area of English Language Teaching (ELT), where the twin activities of the teaching and learning of English have an 'instrumental' purpose—*viz.* catering to specialised needs, either for work or further study—and, further, creating a diversity of language teaching and learning situations which are meant to take the stakeholders around the world (*'Rouletge Encyclopedia of Language teaching and Learning'.* 2004 : 196).

EOP (English for Occupational Purposes), EAP (English for Academic Purposes) and EPP (English for Professional Purposes) are some of the important branches of ESP.

ESP fixes its sights on clearly identified, specific types of recipients when the course specifications are worked out. The teachers of ESP need to be flexible in their approach to teaching English and should have a high degree of confidence in themselves in order that they are able to deal with the wide range of learners' knowledge and abilities. They should possess suitable negotiating skills and be ready to adopt different teaching methods such as group/pair-work, projects, presentations, and, besides these, be prepared, from time to time, to interact with teachers from the other professionally-specific, specialist content areas since, if necessary, they will be required to carry out 'team-teaching' procedures as well. We should not forget the fact that we are in the twenty-first century, and that the English Language requirements, to cope with today's fast-moving world, are as varied as the academic and occupational opportunities available to our learners. We have an unimaginable repertoire of information today, and all of us—including our learners—can access this fruitfully from multiple sources.

The ELT material for the ESP learner should also meet with the highly specialised, highly specific and specially focused areas of information. Brilliant literary pieces from eminent writers serve a very limited purpose here because the ESP learners need the 'skills' to work with English—rather than gather literary knowledge or spend time in 'literary appreciation'. They need exposure to topics of current interest. They need to understand how they should go about their comprehension. They should be able to create comparable pieces of text in their professional life. They should also know how to build their own repertoire of English words, sentences, discourse, and similar other language-related 'skills'. Any textbook should address all these issues, and, in addition, be comprehensive enough to cater to a multitude of learners, and teachers.

Dr. Aysha Viswamohan's textbook is an extremely laudable attempt to fulfill all these requirements. It would be an understatement to state that the selection of the text materials is contemporary and varied—they are simply brilliant. The teachers as well as the learners receive ample attention—the former, in the teaching methodology and techniques, and the latter, in comprehension as well as in 'self-learning' abilities.

G RAJAGOPAL
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Central Institute of English and Foreign Languages
Hyderabad

Preface

This book is aimed at developing the communicative abilities of the students from institutes of technology. Topics have been carefully chosen to serve the interests of the current generation of learners who are globally aware and sufficiently exposed to contemporary trends. The book covers a wide range of topics from international areas as well as those closer to home. Care has been taken to include themes which are deeply motivational, character-building, thought-provoking, and intellectually stimulating. Although the materials cater chiefly to the students of science and technology, undergraduate students from other streams will also find them equally useful and interesting.

Traditionally speaking, the field of English language teaching focuses on the four skills: Listening, Speaking, Reading and Writing, along with the necessary elements of grammar and vocabulary. The present book has been designed in such a way so as to develop the much-needed skills, along with increasing cultural awareness, dictionary skills, and promoting reading of supplementary materials.

For the sake of convenience, the book is divided into two major sections, *viz.*, (a) Language and (b) Skills. Part A (Language) deals with features of grammar and vocabulary, and Part B (Skills) concentrates on the four skills mentioned above. However, this is not to say that either of the two is neglected in any of the two parts. As a matter of fact, skills are integrated in Part A and Part B revisits the linguistic elements covered in Part A. It is just that more attention is paid to language in Part A and to skills in Part B. The unique character of the book therefore ensures an in-depth, and not merely superficial, learning of the English language.

Since the book is designed for students, it was considered appropriate to include actual examples from students' own speech and writing. This was done to sensitise our learners as to where they go wrong while communicating. Activities are built in such a way as to encourage real-life use of the language.

The book is fashioned in such a way that teachers would find sufficient material to use creatively in the classroom. At the same time, a remarkable feature of the book is the inclusion of answer keys at the end of every chapter. This is done in order to empower the learners who can use the book at their own pace and convenience. This two fold approach is devised to make the use of this work simpler and easier for both teachers as well as learners.

The nature of this work is highly interactive, where the learners would feel as though they are being directly addressed. All the tasks, activities and exercises are flexible enough to be handled confidently by an average undergraduate student. As far as possible, writing and speaking activities are provided with guidelines, thus facilitating the two skills. Grammar and vocabulary items are explained through relevant contexts, rather than in isolation.

The tasks and activities are extremely motivational and encouraging, and cater to a mixed abilities group of learners. Emphasis has also been given to pair-work, group discussions and role-plays.

Each chapter concludes with a revision-based activity for consolidating the earlier learning. In fact, this is done repeatedly in the book, where learners encounter those items which they have learnt earlier, thus facilitating broad-based comprehension.

While this book can be used independently as a course book, it can also function as an excellent supplement to the existing course books.

Last, but certainly not the least, is the accompanying audio CD of the book which contains a number of listening activities to hone the skills of the students.

AYSHA VISWAMOHAN

Acknowledgements

Contents

CHAPTER 1

CHAPTER 1

Evolution:
Cooking up
Words

CHAPTER OUTLINE

In this Chapter, in Part I you will learn about the following elements of vocabulary:
- Affixes and roots
- Prefixes and Suffixes
- Forming antonyms by using negative prefixes
- Word formation and derivation

In Part II you will learn to identify the main idea of each paragraph; you will also learn about dictionary skills.

Let Us Discuss

Pre Reading Activity

- Do you think tall creatures have an easier life than their shorter counterparts? Give reasons for your answer.
- Look at the following picture. Which one of the two people you prefer? Why?

Chapter Outline

Every chapter begins with a chapter outline which tells the reader what he will find in the chapter and what he will gain from it.

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6 English for Technical Communication

(Contd)

Be-	With	Bedazzled, bewigged, bespectacled, bewitch
Neo-	New, revived	Neo-Nazi, neopatriot, neo-Gothic, neo-romantics
Micro-	Small	Micromini, micro-computer, microscope, microwave
Multi-	Many	Multinational, multilanguage, multicolor, multicultural
Over	Too much	Overslept, overworked, overawed, overdone
Post-	After	Post-war, postmodern, postgraduate, post-classical
Pseudo-	False	Pseudo-scientific, pseudo-intellectual, pseudo-secular
Re-	Again	Redo, rearrange, retell, recount, replace
Retro-	Backwards	Retrospection, retroflex, retroject, retroactive, retrograde
Vice-	Deputy	Vice-president, vice-admiral, vice-chancellor
Super-	Above	Supermom, superstar, supernatural
Out-	Beyond, outside	Outlaw, outsmart, outstanding
Mal-	Bad, badly	Maladjusted, malpractice, malevolent
Ultra-	Bigger than usual	Ultramodern, ultrasonic
Trans	Across	Trans-Atlantic, transformer
Uni-	Single	Unisex, unidirectional
Co-	With, together	Co-worker, co-operate
Counter-	Against	Countermand, counterattack, counterreply
En-	To cause someone or something to be	Enable, ennerve, enlarge
Metro-	City	Metrocity, metropolis
Self-	Own	Self-imposed, self-taught, self-absorbed
Micro-	Very small in size	Microfibre, microfiche, microfarad

Do You Know?

The pronunciation of the prefix 'arch' is /a: k/ when followed by angel; in other instances it remains /a: ch/ as in archbishop, archdeacon, arch-enemy, etc.

Let Us Discuss

Pre Reading Activity

Pair work
- Collect information on any two evolutionary biologists, and compare their findings.
- Find out how different insects react to colours. Discuss your findings with your partner.

Pre-reading Activity

All chapters begin with an exercise, which could be **Let Us Discuss** or **For Your Notebook**. This exercise precedes the **Readings** and is an effective warm up before we plunge into the **Readings**.

Evolution: Cooking up Words 7

Read the following text carefully and attempt the activities that follow:

Reading 2

Ultraviolet Fly Trap

What induces an insect to wander into a spider's web? Apparently, an irresistible beacon of ultraviolet light.

Evolutionary biologist Catherine Craig and engineer Gary Bernard, both of Yale, came to this conclusion recently while studying the webs of several of the oldest existing species of spiders, trying to determine how web silk has evolved and changed over time. At first they examined just the design and pattern of the webs, but after a while they noticed that the colour and reflectivity of the strands looked odd. Craig says, "We decided to use a spectrophotometer to see what wavelengths of light they reflected." What they found was that the wavelengths the webs reflected best were in the ultraviolet. To see if an ultraviolet-reflecting web provides an advantage in capturing prey, Craig and Bernard took two webs from the same spider and placed them in opposite arms of a Y-shaped chamber. One web was bathed in light that had an ultraviolet component, the other in light in which the ultraviolet was blocked. Fruit flies, were then released into the chamber; most headed straight for the ultraviolet web.

Craig and Bernard believe the insects are lured by ultraviolet because they recognise it as a signal of a clear sky. The trickery works well for primitive spiders, which forage chiefly in dark, shaded areas: enough ultraviolet is reflected from the web to serve as a lure for insects, but not so much that the web is recognised for the deadly trap it is. But as spiders evolved and moved into brighter habitats, they ran into a problem. "If you make an exposed web ultraviolet-reflecting, then its whole pattern is revealed," says Craig.

Many of these spiders have solved the problem by spinning webs that indeed don't reflect well in the ultraviolet. But into these drab structures they then weave a few ultraviolet-reflecting decorations. The ploy works. The researchers found that more insects are caught in decorated webs than in undecorated webs spun by the same spider. And most of the insects that are captured are drawn specifically to the ultraviolet-reflecting sections. Often these meal-enticing embellishments are in the form of zigzag of crosses.

Exercise 3 Instruments of Measurement
A spectrophotometer is an instrument used to measure the wavelength of light.
Match the following instruments with the things they measure:

Instrument	Measures
(a) Durometer	(i) Blood pressure
(b) Ohmmeter	(ii) hardness
(c) Sphygmomanometer	(iii) area
(d) Planimeter	(iv) resistance
(e) Theodolite	(v) density
(f) Pycnometer	(vi) angles

Reading

These are interesting pieces which work as the bases for various topics (skills, vocabulary, grammar and so on), which are taken up subsequently. They are on contemporary topics and will generate interest and discussion.

Culture Junction

These are interesting snippets in the margins of the text which will tell you something additional, something extra, which will be a great value add to your regular studies.

Exercises

This text is distinguished by **an abundance of exercises** which occur in all the chapters at regular intervals. You have an exercise on every theoretic input, encouraging you to practice on every concept that has been explained.

Do You Know

The 'Do You Know' boxes give you something interesting, unusual and very useful, pertaining to a particular topic. They are good add-ons to what has already been taught.

Caution

These boxed items alert you about the pitfalls in the usage of language. They talk about confusable issues and the mistakes one may make as a result of these confusions.

Speaking Discussion

These exercises, sprinkled all over the text, not only give ample practice on a topic, but, also and more importantly, encourage students to speak and participate in discussions. This helps them practice and also makes them team players.

Let Us Revise

A very useful exercise at the end of every chapter or part of a chapter, this gives a good brush up of the topics taken up earlier. This helps in making the reader more thorough and confident.

W...

Evolution: Cooking up Words **19**

B. IDENTIFYING A POSITION

Read the following paragraph:

I am 5-feet-two. In my entire life and career, I don't think I've ever been discriminated against because of my height. Still, tall people have a special status in our culture. Often without good reason, they are thought of as leaders—as "standing tall above the rest." Tall people get better job evaluations and quicker raises. So, short people don't just have to put up with the good stuff always being on the top shelf or tall people sitting in front of them at the movies. A tall person's earning power is head-and-shoulders above his shorter counterpart. And that is wrong.

What is the writer's attitude towards height? Is s/he taking a position in the above passage? Or is s/he talking about advantages as well as disadvantages of being tall? Give reasons for your answer. **Hint: Read the last sentence carefully.**

DICTIONARY SKILLS

It is just not sufficient to buy a standard dictionary and then keep it unused. At the same time, no one should be ambitious enough to assume that they can memorise an entire volume of dictionary. *Vocabulary can be built by frequently looking up for words and expressions in the dictionary and also by actively using them in everyday communication.*
Some of the useful online dictionaries are:
- www.your**dictionary**.com/
- **www.dictionary**.cambridge.org/
- www.websters-**online-dictionary**.org/
- www.freedict.com/
- www.askoxford.com/

Using a dictionary, complete the following words with missing vowels, and then look for their meanings:
- -nd-ces:
- B—con:
- Dr-b:
- H-nch:
- F-r-ge:
- L-r-:
- -mb-ll-shm-nts:
- Pl-y:

Answer Key

Exercise 1
Instruments of measurement
(a) (ii)　　(b) (iv)　　(c) (i)　　(d) (iii)　　(e) (vi)　　(f) (v)

Dictionary Skills

These inputs, scattered all over the book, emphasise upon the importance of using a dictionary and how best it can be used in specific contexts and for different benefits.

Answer Key

This is a great asset for those who wish to use this text as a 'do it yourself', that is, without the guidance of a teacher, maybe at home. It will help them know whenever they are going wrong, and enable them to correct themselves.

APPENDIX

Appendix I

Appendix II

Infinitive	Past Form (Pre Terite)	Past Participle	Infinitive	Past Form (Pre Terite)	Past Participle
arise	Arose	Ari			
awake	Awoke	Aw			
be	Was, were	Be			
beat	Beat	Be			
become	Became	Be			
begin	Began	Be			
bend	Bent	Be			
bet	Bet	Be			
bind	Bound	Bo			
bite	Bit	Bit			
bleed	Bled	Ble			
blow	Blew	Blo			
break	Broke	Bro			
bring	Brought	Bro			
build	Built	Bui			
burn	Burned or burnt	Bu			
burst	Burst	Bu			

Animation Industry in India

Ashish: Hi there! The other day you guys were asking about careers in animation sector in India. Do you think it's a good career option?

Neha: Of course it is. In fact, this sector is witnessing a major boom. Companies like Walt Disney, Imax and Sony are outsourcing cartoon characters and special effects to India. Other companies are outsourcing animation from India for commercials and computer games.

Ashish: So what makes India a hub for animation?

Saahil: Look, major cities in India like Mumbai, Chennai, Bangalore, Hyderabad and Trivandrum have emerged as our animation hubs. A host of companies across these cities are catering to the outsourced world of animation and special effects. These animation firms have set up large production studios that are equipped with state-of-the-art equipment and hardware and software like SGI, 3DMax and Softimage, SFX and processing motion capture facilities.

Ashish: But do we have the required infrastructure for this business?

Neha: Sure we do. India has a vast base of English speaking workforce. Animation, which requires familiarity with the English language, benefits when the work is outsourced to India.

Saahil: Also, India has the second largest entertainment industry in the world, after Hollywood. Animation studios in the country provide a large supply of low-cost, high-quality software engineers. But the main reason why foreign entertainment firms are flocking to India, is the cost advantage the country offers. For instance, in the US, animators can cost about $125 an hour; in India, they cost $25 an hour.

Appendix

Given at the end of the text are Appendices I and II. Appendix I comprises three word lists: *Irregular Verbs, Confusable Words* and *Basic Vocabulary for Technical Communication*. These will prove to be a ready reckoner for students and will help in enriching their vocabulary. Appendix II contains listening activities which, along with the accompanying audio CD, will be of practical help to students.

PART A

PART A
Focus on Language

CHAPTER 1

Evolution: Cooking up Words

CHAPTER 2

Being Scientifically Grammatical and Technologically Correct

CHAPTER 3

Reading and Writing About Institutes of Higher Education

CHAPTER 4

Dot com Success Stories: About Definitions and Descriptions of Successs

CHAPTER 5

Our Environment: Warming up to Prepositions
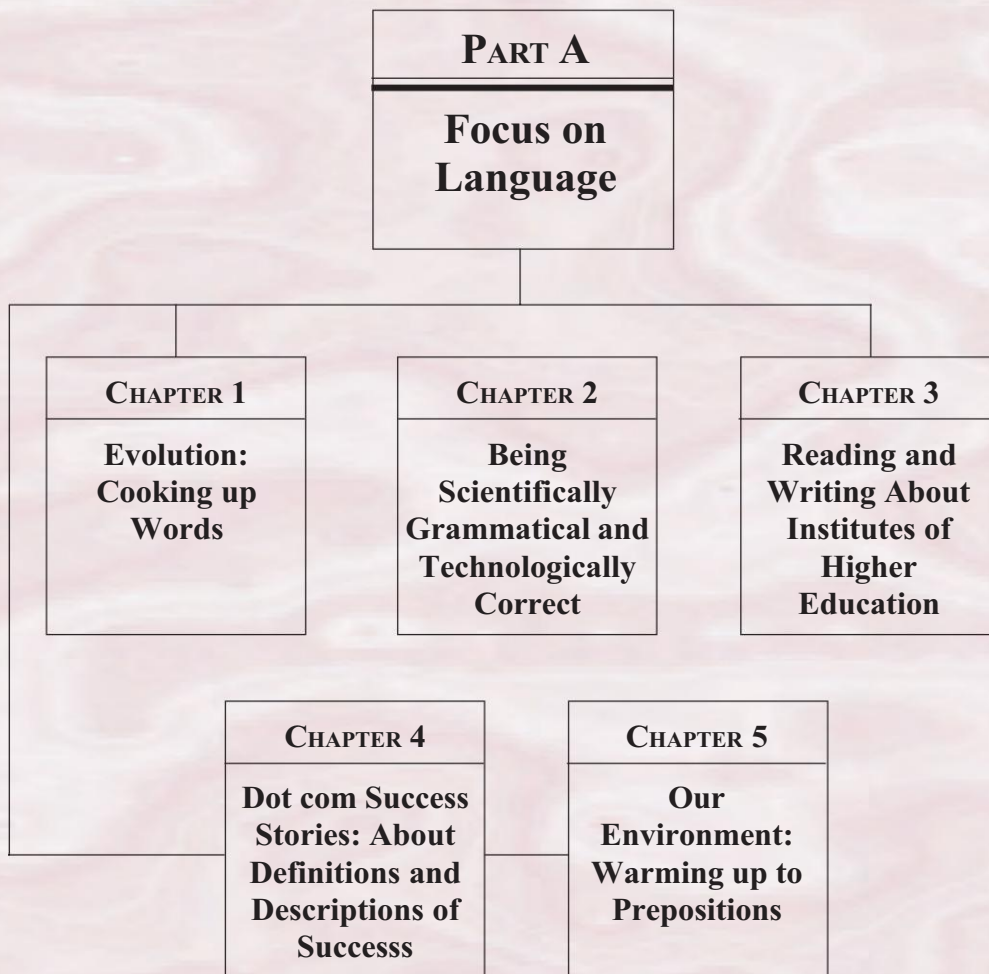
Focus on Language

There may be several definitions of 'language'. However, in this section of our book we will consider mainly two essential components that make a language: **vocabulary and grammar**.

Vocabulary focuses on developing word-formation skills, along with awareness about synonyms and antonyms. Instead of concentrating on words in isolation, they are taught the way they appear in context, specifically in scientific and knowledge-based texts.

Similarly grammar too has been discussed more in context rather than in its traditional and prescriptive form. Readers will have an indepth knowledge about grammatical forms such as subject-verb agreement, tenses, voice, etc.

As mentioned earlier in the Preface, the 'focus' on language does not begin and end with Part A, but continues in Part B as well. This effort has been made to provide learners with a long-term understanding, rather than a hurried brush with concepts.
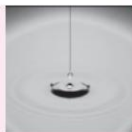
CHAPTER 1

CHAPTER 1
Evolution: Cooking up Words

CHAPTER OUTLINE

In this Chapter, in Part I you will learn about the following elements of vocabulary:
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Pre Reading Activity

Let Us Discuss

- Do you think tall creatures have an easier life than their shorter counterparts? Give reasons for your answer.
- Look at the following picture. Which one of the two people you prefer? Why?
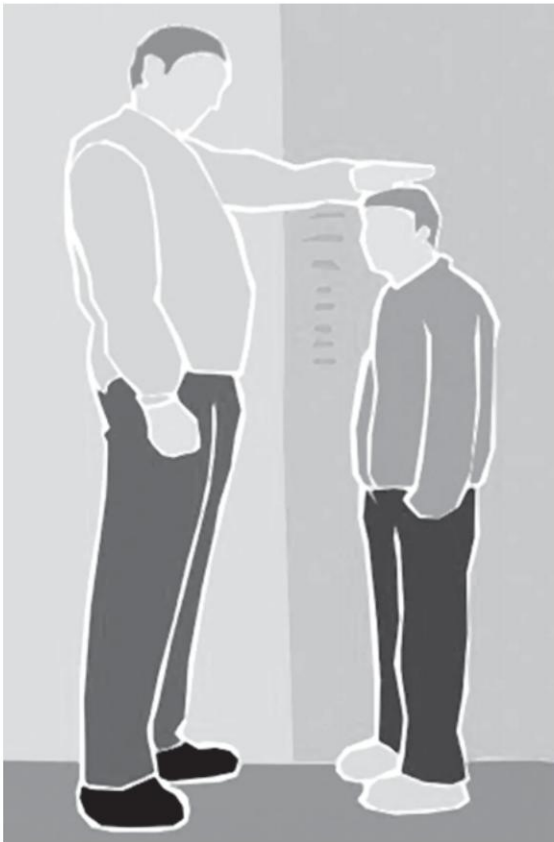
Exhibit 1.1

On Being the Right Size
J. B. S. Haldane

1. For every type of animal there is a most convenient size, and a large change in size inevitably carries with it a change of form. Let us take the most obvious of possible cases, and consider a giant man sixty feet high—about the height of Giant Pope and Giant Pagan in the illustrated *Pilgrim's Progress* of my childhood. These monsters were not only ten times as high as Christian, but ten times as wide and ten times as thick, so that their total weight was a thousand times his, or about eighty to ninety tons. Unfortunately, the cross sections of their bones were only a hundred times those of Christian, so that every square inch of giant bone had to support ten times the weight borne by a square inch of human bone. As the human thigh-bone breaks under about ten times the human weight, Pope and Pagan would have broken their thighs every time they took a step. This was doubtless why they were sitting down in the picture I remember. But it lessens one's respect for Christian and Jack the Giant Killer.

2. To turn to zoology, suppose that a gazelle, a graceful little creature with long thin legs, is to become large, it will break its bones unless it does one of two things. It may make its legs short and thick, like the rhinoceros, so that every pound of weight has still about the same area of bone to

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Culture junction

- *Pilgrim's Progress* Novel by the English writer, John Bunyan. It describes the journey of its highly moral hero Christian and his encounter with various vices and virtues of the world. Giant Pope and Giant Pagan are two such characters who embody these qualities.
- *Jack the Giant Killer* A character from the fairy tale Jack and the Beanstalk. The poor boy Jack kills a giant and gets all his riches.

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support it. Or it can compress its body and stretch out these two beasts because they happen to belong to the same order as the gazelle, and both are quite successful mechanically, being remarkably fast runners.

3. To the mouse and any smaller animal gravity presents practically no dangers. You can drop a mouse down a thousand-yard mine shaft; and, on arriving at the bottom, it gets a slight shock and walks away, provided that the ground is fairly soft. A rat is killed, a man is broken, a horse splashes. For the resistance presented to movement by the air is proportional to the surface of the moving object. Divide an animal's length, breadth, and height each by ten; its weight is reduced to a thousandth, but its surface only to a hundredth. So the resistance to falling in the case of the small animal is relatively ten times greater than the driving force.

4. An insect, therefore, is not afraid of gravity; it can fall without danger, and can cling to the ceiling with remarkably little trouble. It can go in for elegant and fantastic forms of support like that of the daddy-longlegs. But there is a force which is as formidable to an insect as gravitation to a mammal. This is surface tension.

5. Of course tall land animals have other difficulties. They have to pump their blood to greater heights than a man, and, therefore, require a larger blood pressure and tougher blood-vessels. A great many men die from burst arteries, greater for an elephant or a giraffe. But animals of all kinds find difficulties in size for the following reason. A typical small animal, say a microscopic worm or rotifer, has a smooth skin through which all the oxygen it requires can soak in, a straight gut with sufficient surface to absorb its food, and a single kidney. Increase its dimensions tenfold in every direction, and its weight is increased a thousand times, so that if it is to use its muscles as efficiently as its miniature counterpart, it will need a thousand times as much food and oxygen per day and will excrete a thousand times as much of waste products.

6. Such are a very few of the considerations which show that for every type of animal there is an optimum size. Yet although Galileo demonstrated the contrary more than three hundred years ago, people still believe that if a flea were as large as a man it could jump a thousand feet into the air. As a matter of fact the height to which an animal can jump is more nearly independent of its size than proportional to it. A flea can jump about two feet, a man about five. To jump a given height, if we neglect the resistance of air, requires an expenditure of energy proportional to the jumper's weight. But if the jumping muscles form a constant fraction of the animal's body, the energy developed per ounce of muscle is independent of the size, provided it can be developed quickly enough in the small animal. As a matter of fact an insect's muscles, although they can contract more quickly than our own, appear to be less efficient; as otherwise a flea or grasshopper could rise six feet into the air.

7. And just as there is a best size for every animal, so the same is true for every human institution. In the Greek type of democracy all the citizens could listen to a series of orators and vote directly on questions of legislation. Hence their philosophers held that a small city was the largest possible democratic state. The English invention of representative government made a democratic nation possible, and the possibility was first realized in the United States, and later elsewhere. With the

development of broadcasting it has once more become possible for every citizen to listen to the political views of representative orators, and the future may perhaps see the return of the national state to the Greek form of democracy. Even the referendum has been made possible only by the institution of daily newspapers.

(Source: http://irl.cs.ucla.edu/papers/right-size.html)

After reading the paragraphs carefully give definitions for the following in complete sentences:

(i) Resistance is ⎯⎯⎯⎯⎯⎯⎯⎯⎯
(ii) Surface tension is ⎯⎯⎯⎯⎯⎯⎯⎯⎯
(iii) Gravity is ⎯⎯⎯⎯⎯⎯⎯⎯⎯
(iv) A miroscope is ⎯⎯⎯⎯⎯⎯⎯⎯⎯
(v) Democracy is ⎯⎯⎯⎯⎯⎯⎯⎯⎯

PART I

Exercise Consider the sentence, "a large change in size *incomprehensible* carries with it a change of form." What is the root of the word *incomprehensible*?

A root is that word which remains behind once all the attachments are taken off. Can you go over the seven paragraphs and mark out the words which have been formed out of root words?

These attachments are known as 'affixes'—they can be affixed to the rootword to make new ones.

A. AFFIX

Prefixes and suffixes are together known as affixes. When all affixes are removed we are left with the root.

B. PREFIX

A prefix is a word-forming element that is attached to the beginning of a stem to form a new word: **astro**physics, **audio**book, **e**mail, **de**forestation, **cyber**space, **tele**conference, etc.

Read the following list of prefixes and note their uses.

Prefix	Meaning	Examples
Auto-	By oneself	Autocracy, autobiography, autotypic, autopilot.
Arch-	Highest, worst	Archangel, archduke, archenemy, archbishop.
Circum	Around	Circumnavigate, circumlocution, circumfusion, circumscribe
De-	To reverse action	Deforestation, deindustrialisation, demoralise, defrost
Ex-	Former	Ex-president, ex-boyfriend, ex-wife, ex-employer
Fore	Before	Foretell, foresee, foreknowledge, foreskin
Hyper-	Extreme, Extremely	Hypersensitive, hyperemotional, hypertension, hypercritical

(*Contd*)

(*Contd*)

Be-	With	Bedazzled, bewigged, bespectacled, bewitch
Neo-	New, revived	Neo-Nazi, neopatriot, neo-Gothic, neo-romantics
Micro-	Small	Micromini, micro-computer, microscope, microwave
Multi-	Many	Multinational, multilanguage, multicolor, multicultural
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Vice-	Deputy	Vice-president, vice-admiral, vice-chancellor
Super-	Above	Supermom, superstar, supernatural
Out-	Beyond, outside	Outlaw, outsmart, outstanding
Mal-	Bad, badly	Maladjusted, malpractice, malevolent
Ultra-	Bigger than usual	Ultramodern, ultrasonic
Trans	Across	Trans-Atlantic, transformer
Uni-	Single	Unisex, unidirectional
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En-	To cause someone or something to be	Enable, ennerve, enlarge
Metro-	City	Metrocity, metropolis
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(e) Theodolite	(v) density
(f) Pycnometer	(vi) angles

DEFINING SPECIFIC SCIENTIFIC TERMS

Reflection is defined as 'the process by which light and heat are sent back from a surface and do not pass through it.'

Now write specific definitions of the following scientific terms. Work in pairs and compare your answers with your partner's:

(i) A species is _____

(ii) A wavelength is _____

(iii) An ultraviolet ray is _____

(iv) A pattern is _____

(v) A zigzag design is _____

F. FORMING ANTONYMS BY USING PREFIXES

Notice how the word *irresistible* has been formed by adding a prefix to *resistible*. Similarly *undecorated* is formed by using the prefix *un-* before *decorated*, thereby changing into an antonym (or opposite) of the word *decorated*.

Exercise 2

(a) Given below are some negative prefixes. Form at least three words with each of them. Identify their antonyms:

(i) Anti-

(ii) A, ab

(iii) Im-

(iv) Non-

(v) Un-

(b) Given below are some prefixes. Identify their possible meanings:

(i) Infra

(ii) Contra

(iii) Quasi

(iv) Ozone

(v) Thermo

Do You Know?

Many English words come from Latin, which uses prefixes and suffixes extensively. Here are some examples:

ab
(away) abrupt, absent, absolve
ad
(to) adverb, advertisment, afflict
in
(not) incapable, indecisive, intolerable

inter
(between, among) intercept, interdependent, interprovincial
intra
(within) intramural, intrapersonal, intraprovincial
pre
(before) prefabricate, preface prefer
post
(after) postpone, postscript, postwar
sub
(under) submarine, subscription, suspect
trans
(across) transfer, transit, translate

Exercise 3

Know these Professionals

An evolutionary biologist is someone who studies the evolution of species. Given below is a list of professionals and their professions. Match the column A to B.

A	B
Professional title	Profession
(a) Cartographer	(i) One who studies earthquakes
(b) Vulcanologist	(ii) An expert in relics of the past
(c) Seismologist	(iii) One who makes maps
(d) Speleologist	(iv) One who repairs tall structures
(e) Taxidermist	(v) One who studies volcanoes
(f) Entomologist	(vi) One who is an expert in beautiful artistic writing
(g) Calligrapher	(vii) One who studies rocks
(h) Antiquary	(viii) One who studies insects
(i) Steeplejack	(ix) One who studies caves
(j) Paleontologist	(x) One who prepares and stuffs animal skins

Caution

Prefixes and Compound Words
Prefixes should not be confused with compound words. You must remember that compound words are two independent words brought together. Some such examples are: headache, washing machine, travel guide, honey-bee, etc. Here we find two nouns, with a meaning of their own, forming a new word. These are called **Compound nouns**.

Prefixes, on the contrary, cannot exist on their own.

G. SUFFIXES

Suffixes are those parts of words which are added at the end of a word to change its meaning. In the

Sometimes words can be formed by combining a prefix with a suffix. Take astro- and –logy together and you get astrology.

Can you think of more such words?

passage on *Ultraviolet Fly Trap*, we have come across many words, such as *deadly*, *apparently*, *chiefly*, etc.

Identify at least five more words in this passage where suffixes have been used.

Given below is a list of suffixes and their meanings. Can you make at least two words from each suffix?

Suffix	Meaning	Example
-ant	that is or does something	attendant
-ary	connected with	disciplinary
-ate	having the quality of	primate
-crat	a member of something	technocrat
-dimensional	having the number of dimensions	Multi-dimensional
-er	a person or thing	dispenser
-ese	of country, of language	Japanese
-in, -ian	An activity in which many people take part	sectarian
-ist	a person who practises something	capitalist, communist
-ise	to become or make	mechanise

Exercise 4 *Make three words each by using the following suffixes:*
(i) -age
(ii) –ary
(iii) –centric
(iv) –oid
(v) –ure

H. ROOT WORDS

In order to know more about suffixes, you must understand something about the root of a word. Take, for example, a word like *unintentional*. As you would agree, *un-* is a prefix, and on removing it, we get *intentional*. *Intentional* can be further broken into *intention* and *–al*, where the latter is a suffix. But this is not the end. Again, the word *intention* can be analysed as *intend* + *-tion*, where *intend* is the root word which cannot be split anymore.

That brings us again to the definition of an affix, which is: Prefixes and Suffixes are together known as affixes.

In the example we have just seen, thus, *intend* is the root word and all other additions are affixes.

Exercise 5 Identify all the affixes in the following words. Split them as shown in the example below:

unpatriotic   un- + patriotic   patriot+ -ic

(i) Misappropriated
(ii) Disproportionate
(iii) Maladjustment
(iv) Unutilised
(v) Antinationalistic

> **Caution**
>
> Not every word can stand on its own after the removal of the suffixes. For example, words such as *foolish, reddish, childish* have the suffix *–ish*; and all the words can stand on their own even after removing the suffix. However, you cannot remove –ish from a word like English. Same goes true for mutual, where –ual cannot be removed. Therefore, always use caution while using and removing affixes.

I. WORD FORMATION AND DERIVATIONS

Word formation is the creation of a new word. While words can be formed in many ways, derivation is commonly used for this purpose.

The list below gives an account of how words are combined and derived:

Noun	Verb	Adjective	Adverb
	analogue	analoguous	
Anticipation	anticipated	anticipatory	
Assurance	assure		assuredly
	ceases		
Coherence	cohere	coherent	coherently
Coincidence		coincident	coincidently
	commence		
Compilation	compile		
Concurrence		concurrent	concurrently
Conception	conceive		
Confinement	confined		
Contradiction	contradict	contradicting	
Conversion	converse		conversely
Depression	depress	depressive	depressingly
Device	devise		
Diminished	diminish	diminishing	diminishingly
Distortion	distort, distorted	distorted	distortedly
Dramatically	dramatise	dramatised, dramatic	dramatically
Duration	endure	durable, endurable	durably
Encounter	Encounter		
Enormity		Enormous	enormously
Erosion	erode	erosive	
Ethics		ethical	ethically
Figures	figure, figured, figuring	figurative	figuratively

(*Contd*)

(*Contd*)

Fluctuation	fluctuate	fluctuating	
Format	formatted		
		forthcoming	
Founder	founded	founding	
Inclination	incline	inclining	
Infrastructure		infrastructural	
Integrity	integrated	integrating, integrative	
		intrinsic	intrinsically
Intermediary	intermediate	intermediating	
		manual	manually
Medium			
Military	militate	militant	militarily
Minimum	minimise	minimal, minimalist	minimally
		mutual	mutually
Norms		normative	normatively
	overlap, overlapped	overlapping	overlappingly
Passivism		passive	passively
Portion	apportion, apportioning		
		preliminary	
Protocol			
Quality	qualify	qualitative	qualitatively
Recognition	recognise	recognised	
Refinement	refine	refining	
Reflectivity, reflection	reflect	reflecting	reflectively
Restraint	restrain	restraining	
		rigid	rigidly
Similarity	similar	similarly	
		supplement, supplementary	
Suspension	suspend	suspending	
		temporary	temporarily
Unity	unify	unifying	
Violation	violate		
Virtuosity		virtual	virtually
Vision	envision	visualise	

Caution

The past tense of *find* is *found,* e.g., I *found* a pen in the library.
Founded, on the contrary, is used to imply something that has been established or discovered.
The college was founded by her forefathers.
Their relationship was founded on trust and loyalty (based on)
Do *not* use expressions such as I *founded out* the truth much later.

Let Us Discuss

Look at the following picture. Compare and contrast the facial features of any two people:

Do you know what facial traits are? Can you describe your own traits?
Read the following passage and fill in the blanks using the words derived from the brackets.

GETTING USED TO YOUR FACE

Recognising a familiar face is easy; …. (i. figure) out why we know the face is familiar takes a little work—and sometimes a little help from a column in a popular magazine. Mary Ann Baenninger, a psychologist at Washington College in Maryland, was trying to determine how people …. (ii. mental) store, retrieve, and distinguish faces. One …. (iii. possible) is that people examine facial features—like the eyes, nose, and mouth—and then compare these with images of features held in their memory, searching for a match. Or people may simply be struck by an overall flash of recognition. To help settle the matter, Baenninger turned to the pages of *Spy* magazine.

Each month editors at *Spy* sift through hundreds of photographs of celebrities in search of similar looking faces for their *Separated at Birth* column. "For investigating this question, the *Separated at Birth* faces were ideal," Baenninger says.

Baenninger asked 20 people to rate the overall similarity of face pairs from the *Spy* columns. Then, together with undergraduate Dianna Zaring, she used these ratings to …. (iv. category) the faces into groups of high, medium, and low similarity. Among the pairs with high similarity were Mikhail Baryshnikov and Anthony Hopkins; Cher and Benazir Bhutto; and Mia Farrow and Army Carter, Pia Zadora and Gary Shandling were a low-similarity pair.

Next people ranked the similarity of 16 separate traits—such as eyes, nose, or facial width—in each of the face pairs. It turned out that people ranked the similarity of the 16 traits quite differently from the way they ranked the faces overall. According to the ratings, the highly similar faces did not have similar traits at all.

To make sure that people were not biased by judging overall …. (v. like) before they rated the traits, Baenninger and Zaring asked another 90 people to judge traits in face pairs that had already been rated for overall similarity by the first group. Again, faces that were similar overall did not impress people as having similar features.

"This is why," says Baenninger, "at crime scenes, people find it so difficult to describe the details of a face to a police sketch artist." Facial ….. (vi. recognise) , she says, seems to be primarily an overall process.

MAKING ADJECTIVES

The word *facial* in the above passage is an adjective derived from the noun *face*. Some common adjective suffixes are: *-ate,-ic, -ive*, *-ly*, *-ous*, *-able*, and *–ible*.

Now, adding *–ial , -ian* and *-ual* make adjectives from the following words:

Word	Adjective
Finance	
Magic	
Editor	
Text	
Fact	
Politics	
Concept	
Manager	
Habit	
Sense	
Professor	
Consensus	

Exercise 8

SPELLINGS

One of the most common mistakes that students make is confusing the spellings of words ending in –able and –ible. Fill in the blanks using the correct spelling of the word given in the brackets:

 (i) The lecture was completely _____ to me (in +comprehension)

 (ii) The website is not freely _____ (access).

 (iii) This attitude is absolutely _____ (un+accept).

 (iv) The structure is built in such a manner that it is easily _____ (collapse).

 (v) This word is completely _____ (un-pronounce)

 (vi) This substance is _____ in liquid (immerse).

 (vii) The surgery is _____ (ir+ reverse).

 (viii) This task looks _____ to me (do).

 (ix) The situation was rather _____ (un +avoid).

 (x) He was an _____ leader (admire)

Exercise 9 Complete the following with correct derivative of the word in brackets. Use a negative form with prefixes like **dis-, un-, in-,mis-** or **ir-**. For example, by adding the prefix **dis** to the word **inherit**, you can change the word into **disinherit**.

 (i) The building has been _____ since the fire.
   Pollution is an _____ hazard in this industry.

(Occupy)

 (ii) The new goods should be in _____ within a month.
   I'm sorry to say that our talks with the workers have been completely _____

(Produce)

(iii) The patients were angry, and completely _____ with the doctors.
The research has led to some _____ results.

(Satisfy)

(iv) Do your assignments _____
The job was done in a very _____ way, and everyone complained about it.

(System)

(v) You need a _____ of this report.
The news that the gangster has escaped from the prison is still _____

(Confirm)

Exercise 10

(a) Making Verbs

(i) In the passage *Accustomed to Your Face* you have come across a phrase 'to make sure' in the penultimate paragraph. This phrase can be converted into a single verb ensure. In English language we can use the prefixes en- and em- to make verbs. Given below is a list of words and phrases. Make verbs from them using en- or em- as prefixes.

Phrase	Verb
To make someone bitter	
To make someone able	
To give someone power	
To put someone/thing in danger	
To make someone/thing rich	
To fix something firmly into a substance or solid object	
To express or represent an idea or a quality	
To make someone more bold or brave	
To express the most important parts of something in a few words	

(b) Using the words given in the box below, fill in the blanks:

(i) The dead body was _____ and preserved for a week.
(ii) A law has been _____ by the ruling party to protect the interests of the old and the destitute.
(iii) The General's uniform coat was _____ with gold loops.
(iv) Many students have _____ for this course.
(v) That country has recently _____ its women.
(vi) If you want to look at the details in this picture, you must have it _____.
(vii) This is an issue over which no country would like to get _____ with.
(viii) She _____ her manager with plenty of money.
(ix) The details are _____ to protect privacy.
(x) The people of that _____ country have suffered untold miseries.

Encrypted	Enlarged	Embalmed	Embattled
Enrolled	Encrusted	Enacted	Entangled
Entrusted	Enfranchised		

Exercise 11

Fill in the blanks with the words given in the parallel box, with their appropriate derivatives:

1. There are (1) —— volumes on the history of the cinema. Some provide only a brief overview. But *Chronicle of the Cinema*, a remarkable volume on the history of the cinema, is an (2)——work, with no development of art (3)—— being overlooked. The book opens with a chapter on the historic first screening of a moving picture, and works its way (4) —— through to the present day. Thousands of items are presented in a way that bears a strong (5) —— to contemporary newspaper reports. But what makes this book a treat is its illustrations. These are (6)—— and include full-colour reproductions of some of the most unforgettable movie posters ever designed. The whole atmosphere of the Hollywood films of the 1940s is conveyed with great (7) —— in these posters.

1. Count
2. Inform
3. Signify
4. Progress
5. Resemble
6. Plenty
7. Authentic

Exercise 12 *Complete the following table*:

Noun	Verb	Adjective	Adverb
Engineer	engineered	engineering	_____
Specification	_____	_____	specifically
Evolution	evolved	_____	_____
_____	revealed	revealing	revealingly
_____	investigate	investigating	_____
Distinction	distinguish	distinct	_____

SPEAKING/DISCUSSION

In the passage, *Accustomed to your face*, you have read how people can resemble one another without being related at all. Can you think of more pairs of people who bear a resemblance to one another?

Person	Name	Nationality/region	Age	Traits (height, facial features, colour of hair, etc.)
A				
B				

Let us Revise
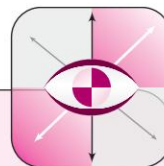
Identify as Many Prefixes and Suffixes as Possible in the following Paragraph. Make a List:

Besides emotional influences on immunity, there is now considerable evidence that physical behavior can have an effect as well. For example, strenuous exercise is known to cause upturns in the level of the hormone cortisol. One study found that marathon runners' cortisol levels jumped by 60 percent after a race and remained up for about two hours. During this time, reproduction of natual killer cells slows down—as does overall immunity.

PART II

Pre Reading Activity

Let Us Discuss

Speaking: Group Discussion

Having identified a position—it is wrong to prefer tall over short people—comment on our society's attitude towards physical structure of people (for example, preferring slim and fair people over those who are not). Take a position and speak for and against it.

A. IDENTIFYING THE MAIN IDEA

Read paragraph 1. Notice that the topic sentence is the first one 'For every type of animal there is a most convenient size, and a large change in size inevitably carries with it a change of form.' The rest of the paragraph is an extension and explanation of the topic sentence. This is done by giving examples from books. It is not as though every first sentence is the topic sentence. Sometimes the last sentence of a paragraph can be the most important one. For example, in paragraph 3 the last sentence 'So the resistance to falling in the case of the small animal is relatively ten times greater than the driving force' is the topic sentence. This statement sums up the writer's ideas in that paragraph.

A good strategy to identify the topic sentence is to identify and isolate the sentence which summarises the paragraph, and without which the paragraph does not make much sense.

Can you identify the topic sentences of the remaining paragraphs?

Some useful links which give details about topic sentences are:

- http://www.lausd.k12.ca.us/lausd/resources/composition/idtopicsentence.html
- http://www.usingenglish.com/handouts/advanced/topic-sentence.pdf
- http://www.laflemm.com/dynamic/online_practice.php

B. IDENTIFYING A POSITION

Read the following paragraph:

I am 5-feet-two. In my entire life and career, I don't think I've ever been discriminated against because of my height. Still, tall people have a special status in our culture. Often without good reason, they are thought of as leaders—as "standing tall above the rest." Tall people get better job evaluations and quicker raises. So, short people don't just have to put up with the good stuff always being on the top shelf or tall people sitting in front of them at the movies. A tall person's earning power is head-and-shoulders above his shorter counterpart. And that is wrong.

What is the writer's attitude towards height? Is s/he taking a position in the above passage? Or is s/he talking about advantages as well as disadvantages of being tall? Give reasons for your answer.

Hint: Read the last sentence carefully.

DICTIONARY SKILLS

It is just not sufficient to buy a standard dictionary and then keep it unused. At the same time, no one should be ambitious enough to assume that they can memorise an entire volume of dictionary. *Vocabulary can be built by frequently looking up for words and expressions in the dictionary and also by actively using them in everyday communication.*

Some of the useful online dictionaries are:

- www.your**dictionary**.com/
- **www.dictionary**.cambridge.org/
- www.websters-**online-dictionary**.org/
- www.freedict.com/
- www.askoxford.com/

Using a dictionary, complete the following words with missing vowels, and then look for their meanings:

- -nd-ces:
- B—con:
- Dr-b:
- H-nch:
- F-r-ge:
- L-r- :
- -mb-ll-shm-nts:
- Pl-y:

Answer Key

Exercise 1
Instruments of measurement
 (a) (ii)   (b) (iv)   (c) (i)   (d) (iii)   (e) (vi)   (f) (v)

Exercise 2

Prefixes

(a) (i) anti-hero, anti-climax, antifreeze
   (ii) amoral, abnormal, abnegate
   (iii) Imbalance, immoderate, immovable
   (iv) non-cooperation, non-alignment, non-aggression
   (v) unarguable, uncluttered, unbridgeable
(b) (i) below (ii) against (iii) partly (iv) a gas , a form of oxygen (v) related to heat

Exercise 3

Professionals

(a) (iii)   (b) (v)   (c) (i)   (d) (ix)   (e) (x)   (f) (viii)   (g) (vi)
(h) (ii)   (i) (iv)   (j) (vii)

Exercise 4

(i) breakage, usage, anchorage   (ii) planetary, budgetary, customary
(iii) geocentric, heliocentric, Eurocentric   (iv) android, humanoid, rhomboid
(v) closure, failure, composure

Exercise 5

(a) (i) Mis-+ appropriated   appropriate+ -d
   (ii) Dis- +proportionate   proportion + -ate   pro+- portion
   (iii) Mal-+ adjustment   adjust + ment
   (iv) Un-+ utilized   utilise +- d   utility +-ise
   (v) Anti-+ nationalistic   national + -istic   nation+- al

Exercise 6

Accustomed to your face

(i) figuring   (ii) mentally   (iii) possibility
(iv) categorise   (v) likeness   (vi) recognition

Exercise 7

Making adjectives

Financial, magician, editorial, textual, factual, politician, conceptual, managerial, habitual, sensual, professorial, consensual

Exercise 8

Spellings

Incomprehensible, accessible, unacceptable, collapsible, unpronounceable, immersible, irreversible, doable, unavoidable, admirable

Exercise 9

(i) unoccupied, occupational   (ii) production, unproductive
(iii) dissatisfied, satisfactory   (iv) systematically, systematic
(v) confirmation, unconfirmed

Exercise 10
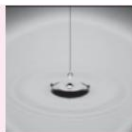
(a) Making verbs
(i) Embitter, enable, empower, endanger, enrich, embed, embody, embolden, encapsulate
(b) Embalmed Enacted Encrusted Enrolled Enfranchised Enlarged Entangled Entrusted
    Encrypted Embattled

Exercise 11

 (i) countless   (ii) informative   (iii) significantly

(iv) progressively   (v) resemblance   (vi) plentiful

(vii) Authenticity

Exercise 12

 (i) No adverb possible   (ii) specify, specific

(iii) Evolutionary, evolved, evolving (adjective); no adverb possible

(iv) Revelation, revealingly

CHAPTER 2

CHAPTER 2

Being Scientifically Grammatical and Technologically Correct

CHAPTER OUTLINE

In Part I of this chapter you will learn about the following elements of grammar:
- Subject-verb agreement
- Tenses
- Impersonal passive

In Part II you will learn about dictionary skills concening idioms and phrases.
You will also start learning about writing skills from this chapter onwards.

Let Us Discuss

Pre Reading Activity

For your Notebook
- According to you, what are the pre-requisites of a great discovery or invention? Elaborate with examples.

Now read the following excerpt. Notice how the writer has made use of present simple and past simple tense:

Technology

Technology, unlike science, *is* a group activity. It *is* not based on an individual intelligence, but on the interacting intelligence of many. I think the biggest success of IGMDP *is* not the fact that in record time the country acquired the capability of making five state-of-the-art missile systems but that through it, some superb teams of scientists and engineers *have been created*. If someone asks me about my personal achievements in Indian rocketry, I would pin it down to *having created* an environment for teams of young people to put their heart and soul into their missions.

   In their formative stages, teams *are* much like children in spirit. They *are* excitable, full of vitality, enthusiasm, curiosity and the desire to please and excel. As with children, however, these positive attributes can be destroyed by the behaviour of misguided parents. For teams to be successful, the environment *must offer* scope for innovation. I *confronted* many such challenges during the course of my work at DTD&P (Air), ISRO, DRDO and elsewhere, but always *ensured* for my teams an environment which allowed innovation and risk-taking.   (***Wings of Fire*** by A.P.J. Abdul Kalam)[*]

VOCABULARY

Abbreviations

Know the expansion of the following abbreviations:

ASM   :   Air to Surface Missile
ISRO   :   Indian Space Research Organisation
DRDO   :   Defence Research and Development Organisation
IGMDP :   Integrated Guided Missile Development Programme
NATO   :   North Atlantic Treaty Organisation
DNS   :   Domain Name System

Exercise 1   *Pick the word in each group nearest in meaning to the given word.*
Attributes   :   Characteristics, meaningful, resistance
Vitality   :   Importance, enthusiasm, health
Innovation   :   Experiment, discovery by research, chance
Confronted   :   Challenged, questioned, explained

COMPOUND ADJECTIVES

The word *risk-taking* in the above text is formed by combining two words *risk* and *taking*. A risk-taking environment is a place where one can take certain risks without getting bogged down by rules and regulations. This is an example of a **compound adjective**.

Exercise 2   *Form compound adjectives by combining Word 1 with Word 2 given in the table below*:

Word 1	Word 2
English	Heavy
Far	Resistant
Top	Speaking
Dirt	Reaching
Home	Bitten
Germ	Cheap
Frost	Black
Jet	Made
Picture	Perfect

Negative Prefixes

In the above passage, you have come across a phrase 'the behaviour of misguided parents'. You must have identified the term 'misguided' as an example of a word formed with a negative prefix 'mis'. We have already learnt in Chapter 1 that vocabulary can be formed by using appropriate prefixes and affixes.

Exercise 3   *Given below are some words; form their antonyms by using prefixes*:
   (i) Personal
   (ii) Challenged
   (iii) Successful
   (iv) Capable
   (v) Excitable

PART I

TENSES

1. Present Simple

We use the **present simple** for
   • Thoughts and feelings: I feel this, I love reading, they leave at 9 a.m. everyday.
   • States, things staying the same, facts and things that are true for a long time, universal facts: The earth revolves round the sun, Water and oil do not mix.
   • Repeated actions: We come here every week.

Present Tense Verbs

Present tense verbs have an 's' or 'es' on the end when the subject is *he, she, it,* a person, or a singular or uncountable noun; e.g. he like**s**, she jump**s**, it go**es**, Hari play**s**, the ice-cream taste**s** good, the river flow**s**. Irregular verbs also change, but differently; she *does*, he *has,* it is, etc.

Examples

'I like him.' 'I' is singular and a first person pronoun, so the verb is 'like'.
'He likes her.' 'He' is singular, but a third person pronoun (so are 'it' and 'she'), so the verb is 'likes'.
'This student likes maths.' 'Student' is a singular noun, so the verb is 'likes'.
'The food here tastes nice'. 'Food' is uncountable, so use a verb that matches third person singular.
'Milk is cheap.' Milk is an uncountable noun in this sentence, so use 'is'.
'These two beers are nice, but that one is horrible'. This means 'These two types of beer', so because there are two types, and types of beer are countable, use 'are'. Drinks are often uncountable, but countable when they are types, in bottles or glasses; e.g. "Can I have an orange juice?"

Note

After words such as 'must' and 'will' you should use an infinitive verb without 'to'; e.g. "He *must tell* me what happens."
The main verb should agree with the main noun, e.g. in "The research in these reports shows that I am correct.", the verb shows agrees with *research*, as *research* is the main noun in the noun phrase *The research in these reports*. Research is an uncountable noun, so *shows* has an 's' at the end.
Let us now move on to learn something about tenses.

2. Present Continuous

We use the **present continuous** for
- Something happening now: It is raining now. I'm watching this programme.
- A routine or situation that we see temporarily: I am writing a report for the office.
- With the Present Continuous to mean 'very often', usally with the added meaning of 'too often'

3. Present Perfect

The **present perfect** is the present tense of have + a past particle.
The **present perfect** tells us about the past and the Present: The aircraft has landed means that the aircraft is on the ground now.

Word-formation

In the previous chapter on vocabulary, you have learnt about word-formation. Fill in the gaps in the table given below. Some parts of the table have been done for you:

Noun	Verb	Adjective	Adverb
Activity	act	_____	actively
Excitement	_____	excitable	_____
Assurance	Assure	_____	assuredly
Rocketry	rocketed	_____	_____

Exercise 4 *Fill in the blanks using the appropriate tense of the verbs given in brackets*:

(a) The scheduled _____ (i) (announce) by the Election Commission _____ (ii) (be) generally welcomed by the political parties and the administration, with the exception of the CPI(M) which _____ (iii) (demand) that the EC reconsider its decision to hold polling in two phases in the State.

107 Assembly constituencies and 16 Lok Sabha constituencies in Telangana will go to the polls in the first phase on April 20 along with 37 Assembly constituencies in the north coastal districts.

The Chief Electoral Officer, M. Narayana Rao, said the schedule _____ (iv) (be) "a well thought out and good arrangement."

The two-phase poll would facilitate easy movement of forces and election personnel from Telangana, where the Naxalites _____ (v) (be) a force to reckon with, to other areas for the second phase. (*The Hindu* , March 1, 2004 p. 8)

(b) Malayalam actor Sureh Gopi has this larger-than-life persona as an action hero—spewing out angry dialogues, letting his fists do the talking very often, taking on corrupt politicians and criminals. When one _____ (i) (meet) the star, one is pleasantly surprised; he is soft-spoken, polite and mild-mannered. Having taken a sabbatical for the past two years, Gopi) _____ (ii) (look) forward to his re-entry into the Malayalam film industry. Currently he _____ (iii) (work)) on the film *Bharatchandran IPS* , a)sequel to his hit film *Commissioner.* (*The Hindu.* ET Madras Plus. Saturday, February 28, 2004, p.1)

(c) The Indian Space Research Organisation _____ (i) (work) on the air-breathing rocket engines that will use hydrogen as fuel and air from the atmosphere as an oxidiser to burn that hydrogen. This is frontier technology, especially because it involves the use of hydrogen, a clean source of fuel.

The ISRO Chairman, G.Madhavan Nair, told *The Hindu*: "We _____ (ii) (initiate) work on air-breathing rocket propulsion systems. They will use hydrogen as fuel and air as an oxidiser. One of the engines for this mission _____ (iii) (be) conceived. In another three months, we will be able to show some results. If we have a good result, it will be a breakthrough. We are really considering to hold the flame at Mach 6," he said. Mach 6 is six times the speed of sound that _____ (iv) (travel) at 1,100 km an hour. (*The Hindu*. Monday, March 1, 2004. p.12)

IMPERSONAL PASSIVE

Impersonal passive is used in academic/technical writing because in many cases, the agent (the person/people/organisation etc. who do/does) of an action is less important than the action itself. We form the passive by using a form of the auxiliary *be* (e.g. *am, is, are, was, were, been, be*) and the past participle of a main verb (e.g. *written, spoken, listened*). Past participles are also used in present perfect

verbs; e.g. *I have **written** an essay*, and are sometimes different from past tense verbs; e.g. *I **wrote** an essay*.

 Let us consider some forms of the passive:

1. All finite passives are formed by some part of the verb **be** plus the past participle.
   - The liquid *is* boiled.
   - The building *is* made of steel and mortar.
2. The auxiliary verb — will, would, can, may, shall, should— + be + past participle
   - The experiment ***will be*** carried out by a team of students.
   - The experiment ***may be*** completed in a few months.
   - Water ***can be*** used in several ways.

> **The use of *by* in scientific English:**
> Notice the absence of the preposition by in the two examples here. It is not necessary that all passive sentences must have ***by*** followed by an agent or a doer. This is because a large number of passive sentences in scientific English have no agent. The *–who* agents are rare and mainly used with the past tense.

Caution

All verbs cannot be used in passive.
This is particularly true for intransitive verbs that do not take an object.
Look at the following examples:
- This is an excellent report.
- There is a deadline for this project.
- I am late.

Exercise ↗ *Complete the following table with the right past participle verb. You may consult the list given in the appendix*:

break	broken
burn	_____
drive	_____
freeze	_____
get	_____
write	_____
shake	_____
draw	_____
fly	_____
lead	_____
show	shown
cut	_____
let	_____
lose	_____
put	_____
tear	_____
upset	_____

Read the following report and note the use of impersonal passive voice by the writer:

Reading 2
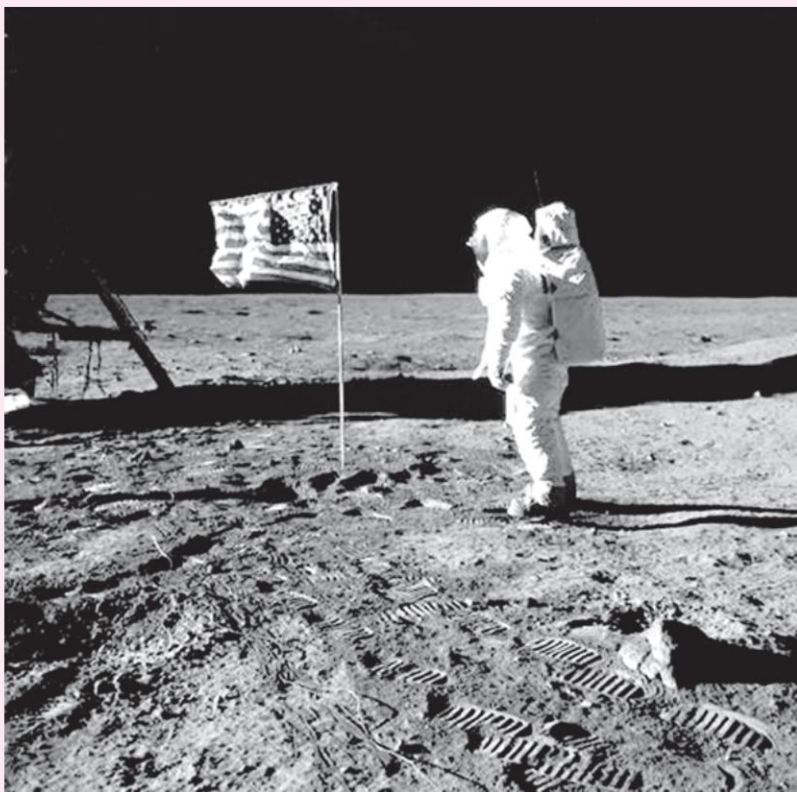
Project A: Major Achievements

Monitoring for spatial and temporal distributions of particulate matter pollution *was carried* out. Over 3000 particulate matter samples *were collected* from several characteristic sites (background, urban industrial, urban residential, traffic, semi urban) in the six cities during 2001-2003. Samples *were weighed* to determine particle mass concentrations and *analysed* for ions and elemental compositions. Particle and gas phase samples *were also collected and analysed* for toxic air pollutants such as PAHs pesticides and PCBs.

Receptor modeling for the source apportionment of fine and coarse fractions of particulate matter *was carried* out in the seven cities using PMF and CMB models. The levels of PM pollutants and their sources vary in different seasons of the year. The results of the receptor models show that major sources of the fine particles are diesel vehicles, biomass burning and secondary particulates. In the coarse fraction construction related activities, fugitive dust, industrial activities and sea salts *have been identified* as major contributors.

Dispersion modeling tools *have been applied* to study PM distribution in Hanoi and Manila based on preliminary emission and meteorological database. The findings show the picture of the overall pollu-

tion and are also useful to locate the hot spot areas in the coming days. Photochemical smog modeling (UAM- V and CHIMERE) results show that air pollution management strategies that lead to VOC reduction will also increase 03 in the city.

Four devices *were developed* for the control of different air pollutants. AIT research team designed and tested upward extended diesel exhaust pipe. PM trap-catalytic soot oxidizer for diesel fuel by the China NRI, biofilter for VOC emission control by the India NRI, and photo catalytic reactor for NOx control by the Indonesia NRI *were developed*. Realcase applications of the devices are under way. Apart from the results and activities mentioned above basic information such as geography, meteorology, major pollutant sources relevant to Project A research of the study cities *have been collected and compiled*.

During the phase 1 of the project research results by AIT and NRIs *were published* and disseminated through various national and international journals and conference presentations. In total, 9 papers *were published* in peer reviewed technical journals. 26 papers were presented in various conference/proceedings and more than 10 manuscripts are under preparation to be submitted to peer-reviewed journals. In total, one PhD 30 master and 10 bachelor students were/are involved in the project and a total of 98 man-day technical training related to project research work were given to the project staff.

VOCABULARY

> **Exercise 5**
> ↗
>
> *Choose the word which comes closest in meaning to the given word*:
> **Spatial** : related to place, time, individual
> **Temporal** : related to place, time, individual
> **Preliminary** : medium, initial, final
> **Peer-reviewed** : reviewed by close friends, reviewed by distinguished people in the related area, reviewed by superiors

Words with Plurals

In the above text you have seen that the plural of staff is staff— and not staffs. In English there are many words which do not change their forms for plural but retain their original form**.** Some of these words are: news, furniture, information, etc.

> **Exercise 6**
> ↗
>
> Now form, wherever necessary, the plurals of the following words:

Mother-in-law	
Passer-by	
Scissors	
Sugar	
Baggage	
Technology	
Knowledge	
Acoustic	
Money	
Outskirt (of a place)	

Exercise 7 Correct the mistakes in the following sentences:
  (i) She has beautiful hairs.
  (ii) My father gave me many good advices when I joined the college.
  (iii) We had a terrible weather.
  (iv) Turn left from the traffic-light.
  (v) His whereabout are unknown to all.
  (vi) I have some news for you.
  (vii) Different peoples of Asia will participate in the conference.
  (viii) Look is very important for most people.
  (ix) The building is made of bricks and stones.
  (x) I love antique furnitures.

Exercise 8 In the passage on Project A you must have noticed that there are several sentences using the passive form of verb. They have been italicised for your convenience.
  Now change the voice in the following sentences:
  (i) The levels of PM pollutants and their sources vary in different seasons of the year.
  (ii) The findings show the picture of the overall pollution
  (iii) Real case applications of the devices are under way.
  (iv) In total, one PhD. 30 master and 10 bachelor students were/are involved in the project.

Suffixes for Antonyms

While prefixes like *dis-*, *non-*, *un-*, *im-*, *in-*, *mal-* can be used to form antonyms,*-less* is one suffix which is generally used to make negatives. Some examples are: boneless, penniless, worthless, spineless.

Making Nouns

In the previous chapter you saw how we can form adjectives by using suffixes like –ial, ic, -al, etc. Similarly, suffixes can also be used to form nouns.
Can you think of more such examples?

Exercise 9 Using the suffixes given below, change the given words into nouns. There may be more suffixes than you actually need:

-ness, -ship, -al, -ery, -ry, -age, -ment, -ing,
-ism, -ity, -dom, -ation, -ion

Post	
Bigot	
Useful	
Technical	
Defer	
Collaborate	
Age	
Official	
Arrange	
Editor	

Let Us Discuss

- Can you name some of the major Indian missiles? Collect information about them and discuss in groups.

Read the following text and identify the tenses of the italicised verbs:

Prithvi

Prithvi *was launched* at 11:23 hrs on 25 February 1988. It was an epoch-making event in the history of the rocketry in the country. Prithvi was not merely a surface-to-surface missile with a capability of delivering a 1000 kg conventional warhead to a distance of 150 km with an accuracy of 50 meter CEP; it was in fact the basic module for all future guided missiles in the country. It already had (2) the provision for modification from a long-range surface to an air missile system, and could (3) also be deployed on a ship.

The accuracy of a missile is expressed in terms of its Circular Error Probable (CEP). This measures the radius of a circle within which 50 per cent of the missiles fired will impact. In other words, if a missile has a CEP of 1 km (such as the Iraqi Scud missiles fired in the Gulf war), this means that half of them should impact within 1 km of their target. A missile with a conventional high–explosive warhead and a CEP of 1 km would not normally be expected to destroy or disable fixed military targets such as a Command and Control Facility or an Air Base. It would however be effective against an undefined target such as a city.

The German V-2 missiles *fired* at London between September 1944 and March 1945 had a conventional high–explosive warhead and a very large CEP of some 17 km. Yet the 500 V-2s which *hit* London succeeded in causing more than 21,000 casualties and destroying about 200,000 homes.

When the West were crying themselves hoarse over the NPT, we stressed upon building competence in core guidance and control technologies to achieve a CEP as precise as 50 m. With the success of the Prithvi trials, the cold reality of a possible strategic strike even without a nuclear warhead *had silenced* the critics to whispers about a possible technology-conspiracy theory.

The launch of Prithvi *sent* shock waves across the unfriendly neighbouring countries. The response of the Western bloc *was* initially one of shock and then of anger. A seven-nation technology embargo *was clamped*, making it impossible for India to buy anything even remotely connected with the development of guided missiles. The emergence of India as a self-reliant country in the field of guided missiles upset all the developed nations of the world.

(***Wings of Fire*** by A.P.J. Abdul Kalam)*

Exercise 10

Fill in the blanks using the words given in the box below:

The Prithvi-2, as a target _____ (i), was first launched from the launch complex No. 3 of the _____ (ii) test range (ITR) at Chandipur at around 1015 hours, sources said. A second missile was fired from launch complex No. 4 located in the Wheeler's Island off the Bhadrak district coast in the Bay of Bengal about 60 seconds later to intercept the first.

The scientists, who had _____ (iii) the short-range ballistic missile on a solo test flight Sunday last from the Integrated Test Range (ITR) at Chandipur, conducted Monday's unique trial as part of the country's air defence exercise. The project is termed as Prithvi Air Defence Exercise (PADE) and more such exercises may be undertaken to make it foolproof for the country's _____ (iv) preparedness. The trajectories of both missiles were programmed to intercept each other in _____ (v) over the sea. The Wheeler's Island is located about 72 km south of Chandipur. According to sources, the target missile interception time was programmed at 170/175 seconds, while the missile from Wheeler's Island blasted off roughly 60 seconds later with interception time of 110/117 seconds. The Prithvi is one of the five missiles being developed under the Integrated Guided Missile Development Programme of the Defence Research and Development Organisation (DRDO). First tested in 1988, Prithvi-I has a range of 150 km and can carry conventional or low-yield nuclear warheads for use against troops or armoured formations. Its two _____ (vi) variants, Prithvi-II and Prithvi-III, have a range of 250 km and 350 km respectively. The air defence exercise is to be followed by a three-day national conference on range technology from Tuesday at ITR. To be inaugurated by President APJ Abdul Kalam, it will be attended by 15 renowned defence scientists from the US, Britain, France, Germany and Denmark.
(Source:)http://timesofindia.indiatimes.com/articleshow/)

Defence	variants	missile
launched	Mid-air	integrated

Exercise 11

Complete the idioms with a word from the box. Check in your dictionary:

bundle	roof	laughter	salt	paradise
air	boat	hatchet	jealousy	matter

  (i) to bury the _____.
 (ii) to be a _____ of nerves.
(iii) to melt into the thin _____.
 (iv) not a laughing _____.
  (v) to sail in the same _____.
 (vi) to hit the _____.
(vii) to double up with _____
(viii) to live in a fool's _____.
 (ix) to be the _____ of the earth.
  (x) to be consumed by _____.

UNDERSTANDING SUBJECT-VERB AGREEMENT

Read the following piece written by a student of engineering:

The best day of my life

The day when I *awake* and heard the news of being selected in the University *is* one of my ideal day. All meals of my choice *was* prepared on that day. I *play* and won all the games, *meet* good friends, *go* to movie and *enjoy* walking across gardens. On that day i *am* full of energy, ecstatic and behaviour of all peoples to me *were* good. I *enjoy* for whole day without wasting a second.

You must have spotted (all highlighted in bold) many errors in the short paragraph above. Note the use of plural verb in 'All meals of my choice *was* prepared on that day' and 'behaviour of all peoples to me *were* good'.

In the first sentence, *all meals* is the subject, and requires a plural verb *were* in the predicate. In the second, *behaviour* is the subject, and needs the presence of a singular verb *was*.

The above are the examples of subject-verb *disagreement.*

Subject-verb Agreement

As seen in the above example, one of the most common types of grammatical error made in English is that of *disagreement*.

Agreement means that the verb changes depending on the type of noun it refers to.

To become more confident users of this element, you need to know certain basic concepts of grammar.

About Verbs

Most verbs tell what someone does: *walk*, *talk*, *do*, *laugh*, *run*, *consider*, *see*, *look*, *think*, and *reflect*.

Be and *have*: These two verbs have multiple forms. Examples: am, be, being, is, was, were, have, has, had, having.

Auxiliaries: Also called helping verbs, auxiliaries include *will*, *would*, *shall*, *should*, *may*, *might*, *can*, *could*, and *must*.

Let is used for first and second person imperatives, for example:

Let us finish this project fast.

Let the metal get heated at a high temperature.

Do is used for imperatives as well, for example:

Do not hesitate to ask questions.

You will learn more about imperatives in the next few chapters.

Subject

As you know well, a subject is an agent or a doer. For example, in a sentence *Venkat is boiling water*, Venkat is the doer of the action, and *is* is the singular verb.

Exercise 12 *Identify the subject in the following sentences*:
  (i) I was introduced to an eminent scientist at the convocation.
  (ii) My father is an army doctor.
  (iii) Recently, I had several long sessions with my dentist.

(iv) Applicants for the job were asked to fill out a questionnaire.
(v) Everyone has different indicators that influence how fast we gain weight.
(vi) You will be a winner.
(vii) Generally, a yawn lasts about six seconds.
(viii) Demonstrated protested against the dictator.
(ix) Children need a diet rich in calcium and iron.
(x) A metre is more than a yard.

DISCUSSION

All great technological achievements and discoveries are the results of team work. Do you agree or disagree? Discuss this in pairs.

Team-work	Individual work
Advantages	Advantages
(i)	(i)
(ii)	(ii)
(iii)	(iii)
Disadvantages	Disadvantages
(i)	(i).
(ii)	(ii)
(iii)	(iii)

Let us Revise

(a) *All the sentences given below have errors of subject-verb agreement. Can you identify these errors?*
  (i) It look like it is going to rain.
  (ii) In this hotel there is a lot of facilities.
  (iii) A basketball and a tennis court is there in this house.
  (iv) Harini as well as her sister do not like this song.
  (v) There wasn't many questions which I could not solve.

(b) *Fill in the blanks with appropriate form of tenses of the verbs given in the brackets*:
  _____ (i) (found) in 1888 by George S. Parker, today Parker is known for high functionality and excellence in design, _____ (ii) (combine) with traditional craftsmanship and advanced technology. In today's era of mass communication, if the renewed interest expressed in fine writing instruments in India can be attributed to one single brand, it surely _____ (iii) (be) Parker. Little wonder, recently Parker _____ (iv) (be))voted unanimously by consumers as one of the most trusted brands in India. Parker as a leader truly _____ (v) (lead) the way.

PART II

IDIOMS AND PHRASES

Idioms are expressions which have a meaning that is not obvious from the individual words. For example, *to kill two birds with one stone* means to perform two tasks by putting in effort and resources for just one. The best way to understand an idiom is to understand it in its context. Look at the following expressions in Reading I (Technology) and try to use them in sentences of your own:

State-of-the-art: built upon latest technology

To put one's heart and soul: to dedicate oneself completely to something

Pin it down: conclude

Dictionary Skills

To find an idiom or phrase in the dictionary, you can try the following:
 (i) Identify the keyword in the idiomatic expression. Generally this is a noun, verb, adjective and sometimes an adverb.
 (ii) Look up the keyword in the dictionary to check the idiom.
 (iii) Idioms are mentioned as IDM in dictionaries.

Look up these phrases in Reading 3 (Prithvi). Now using a dictionary find the meaning of the following:

    Epoch-making event

    Cry one hoarse

    Conspiracy theory

WRITING

Getting Started

From this chapter onwards, you will be getting some useful tips on writing. These activities are for brushing up the skills you already have, and we would like you to actively practice these skills. Writing will be dealt with in detail in the later units, especially in the units on writing.

Maintaining a Journal

An effective method to practice writing is to maintain a personal journal. You may jot down all the highlights of the day (something interesting that happened in the classroom, a funny remark by a friend, a fascinating stranger you met, and so on) before going to bed. Don't hesitate to start just because you think you cannot write effectively. Remember, with practice and patience, it will soon come very easily.

Begin this way:

Today I woke up at 7a.m. and …

Conclude this way:

At the end of the day I felt that …

Answer Key
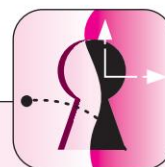
Exercise 1
Attributes : characteristics
Vitality : enthusiasm
Innovation : discovery
Confronted : challenge

Exercise 2
Compound adjectives
English-speaking, far-reaching, top-heavy, dirt-cheap, home-sick, germ-resistant, frost-bitten, jet-black, picture-perfect

Exercise 3
Negative prefixes
Impersonal, unchallenged, unsuccessful, incapable, unexcitable

Exercise 4
(a) (i) announced   (ii) has been   (iii) has demanded
    (iv) was   (v) are
(b) (i) meets   (ii) is looking   (iii) is working
(c) (i) is working   (ii) have initiated   (iii) has been   (iv) travels

Exercise 5
Spatial   : related to place
Temporal   : related to time
Preliminary   : initial
Peer-reviewed : reviewed by distinguished people in the related area

Exercise 6
Mothers-in-law, passers-by, scissors, sugar, baggage, technologies, knowledge, acoustics, money, out-skirts

Exercise 7
  (i) She has beautiful *hair*.
 (ii) My father gave me many good *advice* when I joined the college.
(iii) We had terrible weather.
(iv) Turn left from the *traffic-lights*.
 (v) His *whereabouts are* unknown to all.
(vi) I have *a* news for you.
(vii) Different *peoples* of Asia will participate in the conference.
(viii) *Looks are* very important for most people.
(ix) The building is made of *brick and stone*.
 (x) I love antique *furniture*.

Exercise 8
  (i) Not possible
 (ii) The picture of the overall pollution was shown by the findings (Active-Passive)
(iii) Not possible
(iv) The project involved…) (Passive-Active)

Exercise 9
Making nouns
Postage, bigotry, usefulness, technicality, deferral, collaboration, ageism, officialdom, arrangement, editorship

Exercise 10
  (i) missile   (ii) integrated   (iii) launched
 (iv) defence   (v) mid-air   (vi) variants

Exercise 11
  (i) hatchet   (ii) bundle   (iii) air
 (iv) matter   (v) boat   (vi) roof
(vii) laughter   (viii) paradise   (ix) salt
  (x) jealousy

Exercise 12
  (i) **I** was introduced to an eminent scientist at the convocation.
 (ii) **My father** is an army doctor.
(iii) Recently, **I** had several long sessions with my dentist.
 (iv) **Applicants** for the job were asked to fill out a questionnaire.
  (v) **Everyone** has different indicators that influence how fast we gain weight.
 (vi) **You** will be a winner.
(vii) Generally, **a yawn** lasts about six seconds.
(viii) **Demonstrators** protested against the dictator.
 (ix) **Children** need a diet rich in calcium and iron.
  (x) **A metre** is more than a yard.

Let us revise
(a) (i) looks   (ii) are   (iii) are
     (iv) does   (v) weren't
(b) (i) founded   (ii) combined   (iii) is
     (iv) has been   (v) leads

CHAPTER 3
Reading and Writing About Institutes of Higher Education

CHAPTER OUTLINE

In this chapter you will learn about
 (i) Comprehending a complex text
 (ii) Understanding relations between parts of a text
(iii) Vocabulary related to academics
 (iv) Using numbers and approximations
 (v) Identifying redundant words
 (vi) The following elements of grammar:
   ● Simple past tense
   ● Past continuous tense
   ● Past perfect tenses
(vii) Writing publicity literature

Pre Reading Activity

Let Us Discuss

Science and Technology Related Idioms
Can you think of some idioms which are related to science and technoloy? Discuss.

Exercise 1   Match the idioms and phrases in column A with their meanings in column B

A	*B*
(i) Get into gear	(a) people thinking or having the same point of view
(ii) Put the brakes on	(b) spoilt something
(iii) Getting one's wires crossed	(c) going back on something that was said earlier
(iv) Be on the same wavelength	(d) a misunderstanding between people
(v) Blew a fuse	(e) get started
(vi) Put a spanner in the works	(f) release tension
(vii) Back-pedalling	(g) lose one's temper
(viii) Let off steam	(h) put an end to something

Let Us Discuss

- What kind of infrastructure do you expect from an institute of technology? Discuss.

Pre Reading Activity

Exercise 2   Match the words taken from the text with one of the definitions given. Discuss your choices with your partner.

Word	*Meaning*
(i) Whopping	(a) teaching
(ii) Pedagogical	(b) resulted in
(iii) Garnered	(c) of major city
(iv) High-profile	(d) huge
(v) Holistic	(e) much in news
(vi) Metropolitan	(f) interconnected

- Look at the following expressions:
(a) for those with top-notch academic abilities (b) students are exposed to the best
(c) snapped up by high-profile companies (d) top-grade centres (e) a path of excellence (f) latest technological innovations (g) latest technological innovations (h) placement cell
What do you think you are going to find in the text that follows?

Reading 1

VR Tech-Where Excellence Pays Off!

VR Tech is certainly the place to be in for those with top-notch academic abilities—gold winners a get a whopping Rs 30,000 at this institute, to say nothing of the final-year students who are snapped up by high-profile companies even before they graduate! At VR Tech, students frequently use laptops to assist them in classroom activities, and the innovative double-teacher methodology ensures that students are exposed to the best and most up-to-date means of pedagogical instruction in the country.

With eight top-grade centres with specialised instruction at both the school and professional levels (affiliated variously to Anna University, the University of Madras, and NBA, Delhi) the VR Tech institutes have been streaming a path of excellence for over four decades in Chennai's metropolitan atmosphere, ensuring the best facilities for their students in terms of both academic vision and all round development. Pedagogical innovations include the benefits of the latest technological innovations, with over 2,400 Pentium IV computers for the student's use, as well as access to a satellite auditorium where students can access EDUSAT, Anna University's satellite classroom.

VR Tech has garnered several noteworthy distinctions: it achieved 100% admission under the single window system, and has topped the list of admissions for three consecutive years out of all the 240 self-financing engineering colleges in the state. Its placement cell, which includes a project office and training centres on campus, is particularly noteworthy. It has been instrumental in attracting the attention of many internationally-acclaimed corporates such as Xansa, Accenture, Wipro, Infosys, Polaris, TCS and HCL, which are among over a hundred and twenty organisations to have recruited VR Tech students.

Additionally, VR Tech offers students a safe and holistic residential environment. With separate hostels for male and female students, the campus infrastructure includes a hospital, gyms, computer centres, libraries and rooms with attached bathrooms. VR Tech also provides us services from fifty five locations for non-residential students.

Exercise 3

- The above text is an example of publicity literature for VR Tech Institute. What are the phrases and expressions which make it so?

WRITING

Write an effective publicity literature in about 200 words for your institute/college/university. Your writing should consist of the following:

   (i) An effective title
  (ii) Facts/details (divide them into right paragraphs)
 (iii) Promise

VOCABULARY (CAMPUS INFRASTRUCTURE)

Think of any ten terms related to campus infrastructure. Compare your list with your partner's.

Exercise 4

Academic work
Give one word for the following:
    (i) A collection of individual pieces of work
   (ii) A long essay, often part of a course
  (iii) Using other people's work as yours
  (iv) Evaluated and graded
   (v) Comments from the teacher
  (vi) Tricks that help you remember something
 (vii) Like an assignment but emphasis on student's own research
(viii) Getting plenty of grants and money from the wealthy

mnemonics	feedback	assessed	plagiarised
assignment	portfolio	project	well-endowed

Exercise 5

Replace the verbs in the following words with simple present tense:
    (i) Water *will boil* at 100 degrees temperature.
   (ii) Sea water *may taste* salty.
  (iii) Laboratory equipments *could be* very expensive.
  (iv) This species *may be* dangerous.
   (v) Children, who are not given citrus fruit, may lack in vitamin C
  (vi) Water *may turn* into ice if temperature falls below zero.
 (vii) Jupiter *could be* larger than the earth.
(viii) Plants *may grow* with adequate fertilizers, water and sunshine.

TENSES

Simple Past

We use simple past tense when the past happening is related to a definite time, in the past.
- She was in hospital for four days. (Now she is out.)
- He was in Kolkata for two years (Now he is not.)

The past tense also refers to a definite time in the past denoted by:

A past-time with an adverbial clause
- My mother returned from Vizag last week
- Rekha was born in 1958.

A gap between the time referred to and the present moment:
- Vidya has suffered from arthritis all her life. (She is still suffering, but alive)
- Vidya suffered from arthritis all her life. (She is now dead).

Exercise 6 Fill in the blanks with appropriate forms of the verbs given in brackets:

How the remote was built

(a) In the fall of 1956, the Zenith Space Command 400 _____ (i. make) its debut. Weighing quarter of a kilo, the tiny device hardly _____ (ii. seem) to warrant the Atomic Age bombast of its name. It _____ (iii. do) control rocket ships; it simply _____ (iv. give) lazy viewers a chance to change channels without leaving their chairs. It _____ (v. be) Zenith's third attempt at a remote control.

(b) The Space Command _____ (i. give) viewers instant power over their screens. It _____ (ii.be) a power that would eventually demand more complex media. Soon viewers _____ (iii.start) conducting their own ratings every second, and television _____ (iv. has) to grow more responsive, more competitive.

Past Perfect

We use the past perfect when we want to suggest a time further in the past as seen from a definite time in the past:
- The coach had been murdered, and the captain is being suspected.
- It had been raining for a while. (It is still raining.)

The past perfect is used to describe one event following another in the past. We can show their relation by using the past perfect for the earlier event.
- When Keira had switched off the television, there was a knock on the door.
- Muthu had seen Laxmi when she arrived at the airport.

Exercise 7 *Fill in the appropriate forms of past perfect tense in the following blanks*:

Pillai _____ also (be) (i) a member of the Kalam-led core team that developed the SLV-3s where he _____ (develop) (ii) The four-stage rocket motors, the first stage of which _____ (become) (iii) The booster for Agni. He _____ (be) (iv) A key member of the study team for the polar satellite launch vehicle which was to have the first successful commercial launch the next day. And he _____ (test) (v) his most favourite baby 13 times, most of them with cent per cent success.

Let Us Discuss

Group Discussion

- What is the university system in our country? Are the students expected to accept whatever they are taught or are they supposed to critically analyse it? Which one of the two do you prefer? Justify your views and discuss in class.
- What is the logo of your college/institute? What does it mean?
- Look at the logos of the following institutes/universities. What do you think a logo says about an educational institute?

Exhibit 3.1

1. Ancient university towns are wonderfully alike. Gottingen is like Cambridge in England or Yale in America: very provincial, not on the way to anywhere—no one comes to these backwaters except for the company of professors. And the professors are sure this is the centre of the world. There is an inscription in the Rathskeller which reads 'Extra Gottingam non est vita', 'Outside Gottingen there is no life'. This epigram, or should I call it epitaph, is not taken as seriously by the undergraduates as by the professors.

2. The symbol of the University is the iron statue outside the Ratskeller of a barefoot goosegirl that every student kisses at graduation. The University is a Mecca to which students come with something less than perfect faith. It is important that students bring a certain ragamuffin, barefoot irreverence to their studies; they are not here to worship what is known but to question it.

3. Like every university town, the Gottingen landscape is criss-crossed with long walks that professors take after lunch, and the research students are ecstatic if they are asked along. Perhaps Gottingen in the past had been rather sleepy. The small German university towns go back to a time before the country was united (Gottingen was founded by George II as ruler of Hanover), and this gives them a flavour of local bureaucracy. Even after the military might ended and the Kaiser abdicated in 1918, they were more conformist than universities outside Germany.

4. The link between Gottingen and the outside world was the railway. That was the way the visitors came from Berlin and abroad, eager to exchange the new ideas that were racing ahead in physics. It was a by-word in Gottingen that science came to life in the train to Berlin, because that is where people argued and contradicted and had new ideas. And had them challenged, too.

5. In the year of the First World War, science was dominated at Gottingen as elsewhere by Relativity. But in 1921 there was appointed to the chair of physics Max Born, who began a series of seminars that brought everyone interested in atomic physics there. Born had a remarkable personal, Socratic gift. He drew young men to him, he got the best out of them, and the ideas that he and they exchanged and challenged also produced his best work. Out of that wealth of names, whom am I to choose? Obviously Werner Heisenberg, who did his finest work with Born. Then, when Erwin Schrodinger published a different form of basic atomic physics, it was there where the arguments took place. And from all over the world people came to Gottingen to join in.

6. It is rather strange to talk in these terms about a subject which, after all, is done by midnight oil. Did physics in the 1920s really consist of argument, seminar, discussion, dispute? Yes, it did. Yes, it still does. The people who met here, the people who meet in laboratories still, only end their work with a mathematical formulation. They begin it by trying to solve conceptual riddles. The riddles of the sub-atomic particles—of the electrons and the rest—are mental riddles.

(*Source: The Ascent of Man* by J. Bronowski)

COMPREHENSION

(i) In paragraph 1, what do you think is the tone of the writer? (for example, humorous, sad, questioning)

(ii) In paragraph 2, what is the significance of statue of a barefoot girl? (hint: world cannot be perfect)

(iii) In paragraph 3, what made university towns in Germany more bureaucratic than those outside?

(iv) In paragraph 4, we are told that 'science came to life in the train to Berlin.' What does it mean?

(v) What was the contribution of Max Born to the University of Gottingen?

Exercise 8   *Find words and phrases in the above text which have the same meaning as the*
following:

  (i) Not very respectful
 (ii) Words written or said about a dead person
(iii) A short poem or phrase that expresses an idea in a clever way
(iv) A person who wears old clothes which are torn and dirty
 (v) To voluntarily give up one's throne
(vi) One who goes by the rules without ever questioning
(vii) A well-known or typical example of a particular quality
(viii) Undeveloped place

Let Us Discuss

For your notebook

- What do you feel about studying abroad?
- What are the possible advantages and disadvantages that studying abroad can bring about?

Pre Reading Activity

Germany Beckons Indian Students

Reading 3

After the US and UK, it's now Germany's turn. Professionals are descending on Bangalore to promote 'Campus Germany', a worldwide campaign to invite talented youngsters to start professional career there. India was chosen for active promotion of German higher education and research to meet the increasing interest among Indian students and scientists. For many years, the number of Indian students in Germany remained the same, but doubled all of a sudden recently with an annual growth rate of 30 per cent. Max Mueller Bhavan has brought to Bangalore the 'Promotion Tour-India 2002' for study and research in Germany. Though the latter is well-known in the exchange programme circuits, it is still new in promoting its higher education and research opportunities. The German Academic Exchange Service (DAAD) will participate as also EduFrance. The two non-English speaking countries have geared their higher education systems to meet international mobility standards. The venture is being financed by the Federal Ministry of Education and Research, supported by the German government, corporate, scientific and academic community. Germany has drafted a new immigration law to come into effect in January 2003.   (*Source: **http://timesofindia.indiatimes.com/articles***)

Exhibit 3.2

Exercise 9 Complete the following sentences using information from the text above. Compare your answers with your partners.
  (i) For many years, UK and US have been the preference for Indian students, but now _____
 (ii) The objective of Campus Germany is to _____
(iii) The services of Max Mueller Bhavan include _____
 (iv) The purpose of DAAD and EduFrance is to _____
  (v) Campus Germany is being funded by _____

Exercise 10 *Fill in the blanks with appropriate words given in the box below*:

Germany's offer to Indian students

invitation	discussion	exchanges
learning	destinations	immigration

DAAD, the German agency for promoting academic _____ (i) between Germany and other countries, today sought to organise the visit of the German Chancellor, Mr. Gerhard Schroeder, to invite Indian students and scientists to Germany for higher _____ (ii).

At a panel _____ (iii) organised by the agency and attended by a large number of students drawn from the IITs and other universities, Mr. Schroeder himself extended an open _____ (iv) to Indian students to choose Germany from various foreign _____ (v) for pursuing higher studies.

The Chancellor, who was present throughout the hour-long _____ (vi) particularly pointed out that Germany had some of the best institutions in the world, which offered courses covering a vast spectrum of subjects and observed that _____ (vii) laws of the country were being relaxed to enable foreign students to work there at the end of their period of study.

He also noted that there were several institutions in Germany which offered scholarships, fellowships and other _____ (viii) to foreign students to help meet their expenses.

(*Source: www.hinduonnet.com*)

USING NUMBERS AND APPROXIMATIONS

Consider a sentence as "there are around five hundred theatres in Sydney and approximately 20% are being renovated." In this sentence, again, we are not talking about the exact number of theatres in Sydney'; also we are not sure about the accurate number of theatres that are under renovation.

Words Expressing Approximations

Approximately	About	Around	Almost	Nearly	Roughly
Give or take	More or less	Or so	Or thereabouts	Somewhere in the region of	

Can you think of more examples?

Exercise 11 Harrington Inc. is a leading name in the production of laser printers. Given below is an excerpt from the company profile. Rewrite the information, using an expression of approximation.

Example: Harrington Inc. spends *somewhere in the region* of $3689 annually on print publicity.

Harrington Inc.: An American Success Story

Percentage of sales in Asia	34.78
Amount spend on charity	$1billion
Funds under management	$12,466 billion
No. of major research and development centers worldwide	127
No. of strategic business centers	1,244
No. of non-American employees	8,673

More on Modals

Used to: past or present?
Consider the following:
- I used to drive everyday to the college and after that used to attend the classes.
- I have a garden and used to gardening every day.
- I love football and used to play every evening.

Do you talk like this? If yes, then remember:

Used to is used only to narrate past events. While talking about things and events which you are still doing or are part of your daily routine, do not use *used to*. The correct usage is:
- We used to take long walks along the beach when we were in Chennai.
- She used to sing beautifully till she lost her voice in an accident.

Let Us Discuss

Pre Reading Activity

For your notebook

Have you opted for some interdisciplinary courses in your college/ institute? What was the experience like?

Reading 4

Combining Disciplines for High-Impact Research

The postgraduate programme M.Tech in pharmaceutical chemical engineering, to be introduced at the Anna University, Tiruchi from this academic year, seeks to equip students with knowledge of pharmaceutical science and chemical engineering.

It has been felt that Chemical Engineering students do not know much about pharmaceutical-based subjects, and students of pharmacy would have a little knowledge about manufacturing nuances. The industry, eventually, faces dearth of trained professionals, and its incorporation of material science and modern manufacturing technology is sub-optimal. This course will aim at generating a reliable stream of highly trained eminent professionals.

The course would be a comprehensive multi-disciplinary and an innovative programme designed by the faculty members from the Department of Pharmaceutical Engineering and Technology of the university. It will provide an extensive exposure to industrial applications to develop high-impact research programmes. The programme aims to equip the predoctoral students with integrated research training in pharmaceutical and chemical engineering to support the needs of the industrial and academic pharmaceutical sectors.

The four-semester course will have five theory papers based on a convergence of pharmaceutical science and chemical engineering and a practical paper each semester.

ANNA UNIVERSITY, CHENNAI

Exhibit 3.3

Excellent employment opportunities are available for the pharmaceutical chemical engineers in all major pharmaceutical, chemical and biotech industries. Experts believe that prospects for higher education and research opportunities are higher in India and abroad.

(Adapted from www.hinduonthenet.com)

VOCABULARY

Choose the meaning closest to the given word. Check your answers with a dictionary:
Nuances: choices, guidance, shades
Dearth: plenty, shortage, bottom
Multi-disciplinary: involving many branches of study, involving two areas of academics, globalised
Integrated: mixed, disconnected, close connection of different parts
Convergence: moving from different directions and meeting at a point, moving from one direction to separate ones, collection.

Exercise 12 Change the following sentences into past tense:
  (i) Chemical Engineering students *do not know* much about pharmaceutical-based subjects.
  (ii) The programme *aims to equip* the pre-doctoral students with integrated research training in pharmaceutical and chemical engineering
  (iii) The course *will provide* an extensive exposure to industrial applications to develop high-impact research programmes.
  (iv) The four-semester course *will have* five theory papers

Speaking

Role play for two
As a career counselor, advise a student on the benefits of interdisciplinary research. Talk about the following:
- the traditional approaches to research
- the current trends of interdisciplinary research
- its potential and demand in industry

Exercise 13 Correct the following and discuss your answers with your partner:
I am living in Alaknanda hostel a corner hostel because it is much closer to the boundary than any other hostel. I like the freshies rooms of the hostel—the wall bright coloured , a brown colour study table, etc., which creates a good environment for studies. The mess serves us a not good average service. We used to wake up every morning by 6 am, after which we used to go jogging.

REDUNDANT WORDS

Consider these: 'Brown in colour', Contemporaries 'in age' 'In the past times'.
What is wrong with the above expressions?
   The answer is: they have redundant words. We say 'My brown shirt' nor my 'brown colour shirt'; 'We are contemporaries' not 'we are contemporaries in age', and 'In the past' and not 'In the past times.'
Redundant words are those words which are not needed or are unnecessarily repeated.

Exercise 14 *In the following passage there is an unnecessary word in most lines. It is either grammatically incorrect or does not fit in the sense of the text. Find these words and encircle them*:

  1. Japanese sumo wrestling is generally considered to be one of the
  2. oldest organised sports on earth. Men have been made fighting each
  3. other in the wrestling ring for more over a thousand years, and four

(*Contd*)

(*Contd*)

4. hundred years ago, wrestlers were to be found throughout Japan. The
5. organisational and structure of the sport began in the 1680s, with
6. most of the basic rules remaining unchanged ever since. The
7. ring itself is considered a sacred place, and even for this reason,
8. wrestlers must throw a handful of salt into it before they may start
9. fighting. When they are in the ring, which is five meters in its diameter
10. the men must fight between each other until one of them is knocked
11. down or push out of the ring. Slapping, tripping, and judo-style moves
12. are all allowed, whereas punching him with a fist is not. There is no
13. upper weight in limit, which is why many sumo wrestlers spend years
14. long trying to make themselves put on weight. The Sumo Association
15. runs six major tournaments a year. A tournament lasts during fifteen
16. days and each wrestler fights every other wrestler. The tournament is a
17. grueling test of strength and stamina, and the man who has the far best
18. record all over the two-week period is judged to have won the championship.

(*Source: Certificate in Advanced English: Handbook for Teachers*. Cambridge: University of Cambridge ESOL Examinations, p. 34).

Let Us Discuss

- What is the mission statement of your college/university?
- How significant, in your view, is a college of liberal arts and humanities? Can our society afford to have such institutes?
- What advantages does a new educational institute bring to an underdeveloped area? How can it change the local economy and culture? Discuss.

Vedanta University

Reading 5

The Anil Agarwal Foundation—promoted by Mr. Anil Agarwal, Chairman of Vedanta Resources Plc—today announced that it has chosen Orissa as the location for the multi-disciplinary Vedanta University. The vision includes the spawning of a research township that grows with the university. Besides serving as a 'regional economic engine' the university will set up state-of-the-art infrastructure to drive overall development beyond the academic dimension. The objective is to drive cutting-edge research and produce generations of Indian and global students who will make a name for themselves in their

chosen fields. The Vedanta University has been conceived with an autonomous governance structure, made possible by an endowment that provides self-sufficiency.

A university of this kind can have immediate effect on the local economy, by opening significant employment and economic avenues. However, in the longer term, this university will enable the creation of a 'thriving ecosystem', in terms of, academia, research, industry and government inter-links, resulting in the development of a new 'economic centre'. Stanford University's Research Park has resulted in the growth of more than 1200 companies in the Silicon Valley, with a combined market capitalization of more than USD 300 Billion. The vision of the Vedanta University is to be a similar enabler for India.

The university's academic and research agenda will reflect its 'multi-disciplinary' vision through colleges focusing on a variety of disciplines, including Liberal Arts, Basic Sciences, Engineering, Medicine, Law, Business and Performing Arts, as also 'Centers of Excellence' for cross-disciplinary research in areas like Agriculture, Biotechnology and Nanotechnology, Information and Communication Technology, Health Sciences, Rural Economics and Manufacturing Sciences. The Vedanta University would offer graduate, post-graduate and doctoral programmes with world-renowned faculty. At the core will be a high calibre, comprising an equal mix of Indian and international students. It is envisaged that as the university grows, it would also enable the establishment of other R&D centres, knowledge-based industries and start-ups, to create a vibrant, education and research township.

The Vedanta University has appointed the globally acclaimed architecture firm, Ayers Saint Gross to prepare the master plan for the university. This firm has designed some of the best campuses in the world and has 90 years of rich experience with specialization in projects of higher education.

The estimated outlay for developing the university in phases is Rs.15,000 crores. Earlier this year, the Anil Agarwal Foundation had announced an endowment of USD 1 billion for the setting up of the Vedanta University. The university expects to begin enrolling students in 2008.

(Adapted from: ***www.businesswireindia.com/press release***).

VOCABULARY

American and British Spellings

In the above text you have seen the spelling of *calibre*, which is British English. Americans would spell it as *caliber*.

Exercise 15   Fill in the table given below with appropriate spellings:

British spelling	American spelling
Centre	
Analogue	
	Program
	Encyclopedia

(*Contd*)

(*Contd*)

Cheque	
Ageing	
	Judgment
Modelling	
Analyse	
	Favorite
Colour	
	Skilful
Defence	
Draught	
	Tire
Manoeuvre	
	Catalog

Both forms of spellings are acceptable in most places. The rule of the thumb is to be consistent in spellings while writing your assignments, projects and dissertations.

For further information on this topic consult the following websites:

- www.gsu.edu/~wwwesl/egw/jones/differences.html
- **http://www.scit.wlv.ac.uk/~jphb/american.html**
- www3.telus.net/linguisticsissues/**British**Canadian**American**.html

GRAMMAR

Identify all the past and past perfect tenses, and encircle them.

Let Us Discuss

Speaking

Do you think governments should spend more money on opening new colleges/ universities or maintain the already existing ones? Discuss.

Pre Reading Activity

Let us Revise
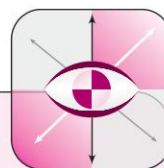
1. *Fill in the blanks using the appropriate tenses and agreement of the verbs given in the brackets*:
   Ronald Perelman's Marvel Entertainment group, best known for its Marvel comic books such as Spiderman and The Hulk, _____ (i) (move) deeper into the toy business. Perelman _____ (ii) (bring) in a top toy designer to help him in this venture. The designer's mission is to try to turn some colourful Marvel superheroes known as the X-Men into the next Teenage Mutant Ninja Turtles. The X-Men ranks _____ (iii) (include) Wolverine and Gambit. They already _____ (iv) (has) their own hit Saturday morning cartoon series on the Fox Network, as well as a popular arcade game.

2. I first _____ (i) (come) to America from Africa in 1973. War and political unrest _____ (ii) (interrupt) my medical education in Ethiopia, the land where I _____ (iii) (be) born and where my parents _____ (iv) (work) for thirty-five years as expatriate teachers. After a hiatus _____ (v) (spend) working as an orderly in a succession of hospitals and nursing homes in New Jersey during my first period of American citizenship. I had eventually completed medical school in India and by 1980 _____ (vi) (pass) all the necessary exams to come back to the United States as a doctor. I _____ (vii) (consider) myself lucky. (*Source: My own Country* by Abraham Verghese).

Answer Key
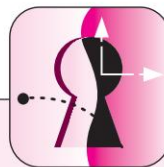
Exercise 1
(i) (e)   (ii) (h)   (iii) (d)   (iv) (a)   (v) (g)   (vi) (b)
(vii) (c)   (viii) f

Exercise 2
(i) (d)   (ii) (a)   (iii) (b)   (iv) (e)   (v) (f)   (vi) (c)

Exercise 4
(i) portfolio   (ii) assignment   (iii) plagiarising
(iv) assessed   (v) feedback   (vi) mnemonics
(vii) project   (viii) endowments

Exercise 5
(i) boils   (ii) tastes   (iii) is   (iv) is   (v) lack   (vi) turns   (vii) is
(viii) grow

Exercise 6
(a) (i) made   (ii) seemed   (iii) did   (iv) gave   (v) was
(b) (i) gave   (ii) was   (iii) started   (iv) had

Exercise 7
(i) had also been   (ii) had developed   (iii) had become
(iv) had been   (v) had tested

Exercise 8

(i) irreverence   (ii) epitaph   (iii) epigram
(iv) ragamuffin   (v) abdicated   (vi) conformist
(vii) by-word   (viii) backwaters

Exercise 10

(i) exchanges   (ii) learning   (iii) discussion
(iv) invitation   (v) destinations   (vi) session
(vii) immigration   (viii) assistance

Exercise 12

(i) did not know   (ii) aimed to equip   (iii) provided   (iv) had

Exercise 14

(2) made   (3) more   (4) be   (6) since   (7) even   (8) may   (9) its
(10) between (12) all   (14) long   (15) during   (16) wrestler (17) best   (18) all

Exercise 15

Center, analog, programme, encyclopaedia, check, aging, judgement, modeling, analyze, favourite, color, skillful, defense, draft, tyre, maneuver, catalogue

Let us revise

(1) (i) moves   (ii) has brought   (iii) include   (iv) have
(2) (i) came   (ii) had interrupted   (iii) was   (iv) had worked
     (v) spent   (vi) had passed   (vii) considered
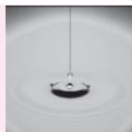
CHAPTER 4
Dotcom Success Stories: About Definitions and Descriptions of Success

CHAPTER OUTLINE

In this chapter you will learn about
 (i) Reading for comprehension
(ii) Understanding definitions
(iii) Understanding simple future
(iv) Recognising topic sentences and supporting details
 (v) Transferring information into charts and tables
(vi) Making adverbs
(vii) Writing descriptions of buildings and people

Pre Reading Activity

Let Us Discuss

- Which is your favourite search engine? Give reasons for your choice.
- Have you heard the proverb *the first impression is the last impression*? What does it mean?
- Look at the list of words given below.

search engine	large volumes of data	
internet companies	the web	big idea

Can you predict the kind of text you are going to read?

The "Googleplex" is a modern, two storey office building amidst trees and gardens, just off a highway. The atmosphere inside is relaxed and casual.

Exhibit 4.1

The walls of Googleplex are lined by java lamps and huge exercise balls roll around on the carpet. Members of the 300 HQ-based staff play roller hockey in the even parking lot.

The tone is set from the highest. Google co-founders Larry Page and Sergey Brin share a small office heaped with computer gear, games, hockey sticks, helmets, cameras and gadgets. Although they mastermind one of the few remaining dot-com success stories, their first meeting was far from friendly. According to insiders, company founders Larry Page and Sergey Brin were not terribly fond of each other when they first met as Stanford University graduate students in computer science in 1995.

It was 1995 and Page, a slim young man with sloping shoulders and a pale complexion, had arrived at nearby Stanford University on a weekend visit to the computer science department. An ingenious tinkerer, at college he had built a fully functioning printer out of Lego. He joined a group being shown around the Stanford campus by a tousled figure with the physique and grace of an athlete.

It was Sergey Brin, the son of a Russian émigré mathematics professor. Page and he disagreed on every point. "When Sergey and I met, we both thought the other was really obnoxious," Page remembers.

The two argued a lot but soon found they were working in similar areas—retrieving and organising large volumes of data—and joined forces. For testing their theories nothing was better than the World Wide Web, then having 30 million pages.

> **Culture junction**
>
> Google is a play on the word **googol**, which was coined by Milton Sirotta, nephew of American mathematician Edward Kasner, and was popularized in the book, *Mathematics and the Imagination* by Kasner and James Newman. It refers to the number represented by the numeral 1 followed by 100 zeros. Google's use of the term reflects the company's mission to organise the immense, seemingly infinite amount of information available on the web.

Web pages invariably include links to relevant pages provided by other websites so users can rapidly click—or "surf"—from one to the next. As an academic exercise, the two post-graduate students developed a way to analyse these links and determine how many times they were used. "Counting links made to web-pages gave us a way of ranking them in order of popularity," says Page. And this was the nub of their big idea.

Search engines at that time were new and exciting but not very good. A search for "university," for instance, would produce a mish-mash of obscure Web pages in which the important places most people really wanted were buried. Page-ranking technology, however, could take searchers straight to the page they were most likely to be looking for.

The idea became even more refined. Not only could every link made to a page act as a vote in its favour, but votes cast by "important" pages (that is, pages that themselves got lots of votes) could weigh more heavily. But it was all only on paper, until Page and Brin decided to build a prototype search engine.

They started frequenting loading bays at the University, when shipments of computers arrived, the pair begged and got machines for their project and strung them together in Page's dorm room. Not only did it work, but word of its speed and accuracy spread rapidly through the university and out into cyberspace. Soon it was handling 10,000 search requests a day.

The duo generated the requisite cash and bought 111 hard disks from the back of a truck, built cases of Lego to house them, and moved the operation into a garage.

Although they never went in for a publicity overdrive, Google's speed and effectiveness spread by word of mouth. Their private company makes most of its estimated $50-$100 million a year from big-name corporations such as Virgin.net, BBC, AOL and Netscape which use its technologies.

Today some 55 million people around the work use Google. To keep up with the rocketing growth of the World Wide Web, more computers are continually slotted in—the number is secret but thought to be about 16,000.

Exercise 1 **Vocabulary**

Match the words with their meanings:

(i)	Obnoxious	(a)	piled
(ii)	Heaped	(b)	typical
(iii)	Mastermind	(c)	mixture
(iv)	Prototype	(d)	rude, badly behaved
(v)	Obscure	(e)	control
(vi)	Mish-mash	(f)	vague
(vii)	Rocketing	(g)	untidy
(viii)	Tousled	(h)	increasing

Exercise 2 The word cyberspace is made by adding the prefix cyber to the root space. Can you make five more words with this prefix.

Comprehension

(i) What was the first meeting of Page and Brin like?

(ii) What was Larry Page's major achievement before joining hands with Brin?

(iii) What was the problem with earlier search engines? How did google address it?

(iv) How does google make money?

WRITING: WRITING DESCRIPTION

Describing Buildings

Consider the following sentences:

"The "Googleplex" is a modern, two storey office building amidst trees and gardens, just off a highway. The atmosphere inside is relaxed and casual. The walls of Googleplex are lined by java lamps and huge exercise balls roll around on the carpet. Members of the 300 HQ-based staff even play roller hockey in the parking lot."

In the above lines, the writer describes the "Googleplex" using the following criteria:

Age	Ambience (external)	Location	Ambience (internal)	Physical structure	Maintenance
Modern	amidst trees and gardens; staff even play roller hockey in the parking lot	Just off a highway	relaxed and casual	two storey office	walls of Googleplex are lined by java lamps and huge exercise balls roll around on the carpet

Describe a famous building in your city. You may use some of or all the above criteria.

Describing People

ABRAHAM LINCOLN

Exhibit 4.2

Look at the following sentence:
- "Page, a slim young man with sloping shoulders and a pale complexion"
- "A tousled figure, with the physique and grace of an athlete. It was Sergey Brin, the son of a Russian émigré mathematics professor."

What are the features taken into account while describing the physical characteristics of a person? Underline those words you think are relevant.

Exercise 3 **Pair work**

Look at any two of your classmates and describe them by filling up the chart below. Compare your findings with your partner, and then transfer the information into a paragraph.

	Physique (tall, short, overweight, skinny, etc)	Complexion	Hair/Eye colour	General appearance	Place of origin	Any peculiarity/ distinguishing feature	Information about parents
A							
B							

MAKING ADVERBS

'Web pages *invariably* include links to relevant pages provided by other websites…' Here, *invariably* is an example of an adverb.

Adverbs are those words which modify a verb, an adjective, another adverb, a phrase, or a clause. An adverb indicates manner, time, place, cause, or degree and answers questions such as "how," "when," "where," "how much".

Some examples are given below:

Certainly	Arguably	Principally
Clearly	Perhaps	Specifically
Indeed	Decidedly	Much/more
Obviously	Theoretically	Considerably
Fortunately	Incredibly	Completely
Nominally	Officially	Nearly
Supposedly	Technically	Well
Probably	Basically	Rather
Evidently	Essentially	Totally
Apparently	Significantly	Very

	Exercise 4	Look at the following table and make adverbs wherever possible. Check your answer with your partner:

Noun	Adjective	Verb	Adverb
Generalisation	general	generalise	…
Accuracy	accurate	…	…
Computer	…	computerise	…
Conclusion	conclusive	conclude	…
Electricity	electrical	electrify	…
Environment	environmental	…	…
Explosion	explosive	explode	…
Machine	Mechanical	mechanise	…
Measure	measurable	measure	…
Process	Processed	process	…

Work hard or hardly?

Read the following:
(i) I work hard.
(ii) I hardly work.
Sentence i. suggests that the speaker is a hard-working person. Sentence ii, on the other hand, suggests that the speaker seldom or rarely works.
The adverb *hardly*, therefore, has a negative meaning.
Do not get confused in the usage of the two.

WRITING

Make sentences using the following words of degrees:
- Exponentially
- Increasingly
- Dramatically
- Drastically
- Slightly

Organising for Coherence

Coherence refers to the continuity of meaning that enables others to make sense of a text. Understanding the arrangement of topic sentence and supporting details in a paragraph is an important element of coherence.

Topic Sentence   Every paragraph should begin with a topic sentence. This prepares the reader for the content of the paragraph. The topic sentences together should make a summary of the text. It should be followed by:
- First main point
- Support detail
- Sub detail
- Second point
- Support detail
- Sub detail
- Third point
- Support detail
- Sub detail

You will learn more about this in the following chapters.

Exercise 5 ↗ Read the following text, and check your understanding of the main idea and sub-points in a paragraph:

Topic sentences	Other sentences in the paragraph
(i) Sabeer Bhatia was born in 1969 in Chandigarh.	(a) In 1992, while working on his Ph.D., Sabeer dropped out and joined Apple Computers as a systems integrator. He worked for Apple Computer for a year. Then he worked for another startup, Firepower Systems Inc.
(ii) Sabeer Bhatia is one of the great Indian success stories at the Silicon Valley.	(b) But Arzoo.com failed with the burst of dot-com bubble.
(iii) He comes from a humble background. His father was an army officer and his mother worked with the Central Bank of India.	(c) One of the co-founders of Hotmail; Sabeer was named by TIME as one of the "People to Watch" in International Business.
(iv) In 1988 Sabeer Bhatia came to America and completed his B.Sc. with honours and earned a master's degree in electrical engineering from Stanford University.	(d) They launched pioneering web-based e-mail service Hotmail. At the end of 1997, he sold Hotmail to Microsoft for $400 million. Sabeer Bhatia worked for Microsoft for a year until March of 1999, and then in the middle of 1999 he founded Arzoo.com.
(v) In 1995, Sabir Bhatia co-founded Hotmail Corporation along with Jack Smith, a colleague at Apple Computers.	(e) He is better known as the man who co-founded Hotmail. He later sold it to Microsoft for $400 million and today Hotmail is the world's largest e-mail provider, with over 50 million registered users.
(vi) Arzoo.com was supposed to be a real-time marketplace for technology related solutions and support.	(f) Sabeer Bhatia had his earlier schooling at Bishop Cotton's School in Pune and later on at St Joseph's College in Bangalore. After passing out from school he joined the Birla Institute of Technology (BITS) at Pilani. At Pilani, he qualified to try for a transfer scholarship at Cal Tech, considered to be the world's most competitive scholarship. Sabeer Bhatia was the only applicant in the entire world in 1988 to get a passing score of 62.
(vii) Sabeer Bhatia's vision was to make Arzoo.com, the world's largest human network of intellectual capital	(g) It was envisaged as a platform that would enable engineers, developers and scientists from around the world to monetise their expertise on the one hand, and enable corporations to improve the productivity of their employees on the other.
(viii) In 2006 Sabeer Bhatia re-launched Arzoo as a travel portal	(h) Sabeer Bhatia has also started a new venture called BlogEverywhere with co-founders Shiraz Kanga and Viraf Zack.

Let Us Discuss

For your notebook
- What do you understand by hacking?
- What measures do you take to safeguard your computer sysem from hackers?

Read the following passage and attempt the exercise that follows:

As the benefits of technology have made computers an increasingly important part of our society, an accurate and candid assessment of the risks of catastrophic cyber attacks has become a national priority. Today, computer systems are at the heart of government operations ranging between the smallest of towns to the Pentagon. They are an essential part of the critical infrastructures that drive our economy, including telecommunications, energy transmission, financial services, manufacturing, water distribution, transportation and health care. Securing these critical infrastructures will require collaboration between government and the private sector, continued efforts to enhance technology security, tougher penalties for cyber crimes and increased funding for law enforcement efforts to fight it.

Viruses are the most widely known security threat. Viruses are computer programs that are written by devious programmers and are designed to replicate themselves and infect computers when triggered by a specific event. For example, viruses called macro-viruses attach themselves to files that contain macro instructions (routines that can be repeated automatically, such as sending mail) and are then activated every time the macro runs.

Trojan Horse Programs: Trojan horse programs, or Trojans, are delivery vehicles for the destructive computer code. Trojans can delete data, mail copies of themselves to email address lists and open up computers to additional attacks.

Vandals: These are hybrid programs and may come in the form of JAVA applets and some applicatrion program. Their effect may be devastating such as corrupting all the files of a system. The most common entry points for these codes are: Floppy disks, Zip disks, CD-ROMs and peripheral storage and Universal Serial Bus (USB).

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Encryption
Encryption is the science of turning plain text into a cryptic form so as to render it unreadable to users who are not intended to read it. This form of protection can be provided for data that has to travel through insecure channels through the internet.

Types of Encryption Algorithms
Shared Secret/Symmetric: This is the classical type of encryption. The same password is used to encrypt the message as is used to decrypt the message. Some examples are IDEA, Blowfish, DES, etc.

Public Key/Asymmetric: These are a relatively recent class of algorithms discovered in the late 70's. They are constructed of a two part key. One key is used to encrypt the data while the other key is used to decrypt the data. Given one key and an encrypted message it is mathematically very difficult to determine the other key. E.g.: RSA, MID5, etc.

Firewalls: It is the most important tool for protecting a corporate network from internet intrusions. Three common firewall architectures – packet filters, proxy systems and stateful inspection systems are explained next.

A *network firewall* is a hardware and/or software barrier between two or more networks. The firewall controls who can access the information behind the barrier and how they can access it. MPS is one example of a firewall; however, many other firewall products are available. Mostly, these other firewalls are software systems based on Windows NT or UNIX, though hardware platforms (such as routers) may also run firewall software systems. Often, companies use more than one type of firewall to provide a greater level of security.

Packet Filters: The simplest and most popular form of firewall is the packet filter, also known as a *screening router,* which has some kind of built-in capability that restricts traffic between destinations. A simple packet filter operates only at the network level and makes decisions about which packets to pass through and which to prevent based on the contents of the TCP/IP packet headers. Packet filters are very fast, very flexible and inexpensive, but they lack the ability to provide detailed information about the traffic they transmit. They are vulnerable to attack because they assume that the software on the hosts behind them is configured correctly. For this reason, many experts prefer to avoid packet filters as a sole defense.

Stateful Inspection Devices: Vendors have come up with several ways to overcome the disadvantages of the proxy system. Because of proxy limitations, many firewall products provide additional ways to connect through an internet gateway. For example, Raptor Systems' Eagle NT firewall software not only provides predefined proxies for FTP, Gopher, HTTP, SMTP and telnet but also lets an administrator, custom-defined unidirectional or bi-directional service, passing proxy for less common services, such as Real Audio.

In order to ensure a safe and secure computing environment, additional resources are needed by the department of Justice and the FBI to hire, train and equip agents and prosecutors specialising in cyber crime. It is important that international cyber crime laws and penalties be strengthened. Some progress has been made in this regard namely, the creation of the Information Technology and Information Sharing and Analysis Center which coordinates information sharing on cyber vulnerabilities among information technology companies.

Exercise 6

- *Give a suitable title to the above passage.*
- *Identify the introduction and conclusion of the text.*

| Exercise 7 | Based on the above, transfer the information in the table given below: |

Introduction	(i) ———————————
	(ii) ———————————
	(iii) ———————————
Problem	(i) ———————————
	(ii) ———————————
	(ii) ———————————
Types of problem	(i) ———————————
	(ii) ———————————
	(iii) ———————————
Names of solution (s)	(i) ———————————
	(ii) ———————————
	(iii) ———————————
How do the solutions perform	(i) ———————————
	(ii) ———————————
	(iii) ———————————
Problems with the solution	(i) ———————————
	(ii) ———————————
	(iii) ———————————
Conclusion	(i) ———————————
	(ii) ———————————
	(iii) ———————————

DEFINITIONS

Look at the following two definitions of *man*:
  (a) A man is a creature that walks and talks.
  (b) A man is like Hitler or George Bush.

Obviously both the above definitions are unacceptable. Definition a. tells us too little and b. gives only examples of two famous men.

This brings us to a specific definition of a definition, which is as follows:

A definition describes a thing first in terms of its general class, then in terms of its particular properties, qualities, uses, etc.

Consider the following two examples. Do you think they consist of all the relevant features of a good definition?

Gas   Gas is a state of matter distinguished from the solid and liquid states by relatively low density and viscosity. It has the property of great expansion and contraction with changes in pressure and temperature, the ability to diffuse readily, and the spontaneous tendency to become distributed uniformly throughout any container.

Oxygen Oxygen is a nonmetallic element which constitutes 21 percent of the atmosphere by volume that occurs as a diatomic gas, O_2, and in many compounds such as water and iron ore. It combines with most elements, is essential for plant and animal respiration, and is required for nearly all combustion. Atomic number 8; atomic weight 15.9994; melting point "218.4°C; boiling point "183.0°C; gas density at 0°C 1.429 grams per liter; valence 2.

Exercise 8 Give definitions in two to three sentences for the following:
  (i) Computer:
  (ii) Hybrid programme:
  (iii) Telecommunication:
  (iv) Proxy:
  (v) MPS:

Let Us Discuss

Pre Reading Activity

- Have you ever visited Wikipedia for any of your projects?
- Select a topic of your choice, and then look up for it both in Encyclopedia Britannica as well as Wikipedia. Compare the information gathered from the two sources.

Reading 3

Wikipedia is a multilingual, web-based, free content encyclopedia project. Wikipedia is written collaboratively by volunteers; the vast majority of its articles can be edited by anyone with access to the Internet. Wikipedia's name is a portmanteau of the words *wiki* (a type of collaborative website) and *encyclopedia*. Its main servers are in Tampa, Florida, with additional servers in Amsterdam and Seoul.

Wikipedia's English edition was launched on January 15, 2001, as a complement to Nupedia, an expert-written and now defunct encyclopedia. The project is currently operated by the Wikimedia Foundation, a non-profit organisation created by Jimmy Wales, the co-founder of Wikipedia. Wikipedia has approximately 7.5 million articles in 253 languages, 1.8 million of which are in the English edition. It has steadily risen in popularity since its inception, and currently ranks among the top ten most-visited websites worldwide. Traffic to Wikipedia's 72 servers on any given day exceeds 80 million hits.

Wikipedia was co- founded by Jimmy Wale, who believed in creating an open encyclopedia that anyone can contribute to. The project also adapted a rule: every time someone edits an article, a new version is created and stored. All contributions are kept for posterity and identified as such.

Due to its open nature, critics have questioned Wikipedia's reliability and accuracy. The site has also been criticized for its susceptibility to vandalism and the addition of false or unverified information, uneven quality, systemic bias and inconsistencies, and for favoring consensus over credentials in its editorial process. Wikipedia's content policies and sub-projects set up by contributors seek to address these concerns. Two scholarly studies have concluded that vandalism is generally short-lived and that Wikipedia is generally as accurate as other encyclopedias.

Some studies suggest that Wikipedia provides a good starting point for research, but sometimes suffers from significant omissions and inaccuracies. On the other hand, an investigation by *Nature* comparing Wikipedia to the *Encyclopædia Britannica* suggested a near similar level of accuracy in terms of its natural science articles. Encyclopædia Britannica Inc. disagreed and described this study as "fatally flawed", to which *Nature* later responded, stating that its study was perfectly neutral. Other studies have concluded that Wikipedia's coverage of history is significantly broader and deeper than that of Encarta, while being just as accurate, and that obvious vandalism is usually reverted quickly.

Source: Adapted from www.wikipedia.com

Exercise 9 Give one word from the above text for the following statements:
  (i) A website which functions in many languages
  (ii) Something which does not exist anymore
  (iii) Being prone to something/someone
  (iv) Something which is a group effort
  (v) A part of a computer network which does a particular task

Exercise 10 Complete the following sentences:
  (i) Wikipedia is _____
  (ii) Wikipedia is written by _____
  (iii) In its database, Wikipedia has _____
  (iv) Wikipedia has been criticised for _____
  (v) When comparted to Encyclopedia Britannica, Wikipedia provides information which is _____
  (vi) A hit is _____

Exercise 11 The words given in the box below are the antonyms of those found in the text above. Use them to fill in the blanks:

| Neutrality | formerly | praised | unreliability | individual |

  (i) A book writing is never an _____, but a collaborative effort.
  (ii) We rejected the report owing to its _____.
  (iii) The committee was dissolved because of its lack of _____.
  (iv) The website has been _____ for being a valuable source of information.
  (v) The project was _____ funded by the UNO.

ADVERBS SUGGESTING DEGREES

In this chapter, you will come across words, such as *steadily*, *approximately*, *significantly*, etc. These words suggest degrees.

In report writing and other kinds of formal writing, we often use words suggesting degree.

Let Us Discuss

For your note book
- Visit youtube.com and watch a few videos related to your academic area. Discuss the merits and limitations of this site.

Let's say you're in your 20s and you start your first Internet company. Let's say 21 months later you sell it for $1.65 billion.

What do you do next?

At first, not much. Some of the money is tied up in bonds, and the traditions of Silicon Valley require a period of restraint before one spends in the big, life-changing ways.

Still, the world wants to talk to you. Japanese television, Spanish newspapers, a bunch of French journalists and what seems like every news outlet in the U.S. Friends you haven't heard from in a long time send e-mails, and want to renew ties with you.

Such is life these days for Chad Hurley and Steve Chen; pre-moguls, almost tycoons. They foreshadow but don't quite yet embody the wealth and power that accompany their role as the new demigods of the online world.

YouTube became a rage in 2006 for many reasons, but one in particular: it was both easy and exciting, a rare combination. You can watch videos on the site without downloading any software or even registering. YouTube is to video browsing what a huge shopping mall is to shopping: everything is there, and all you have to do is walk in the door. This is how it initially worked, till it got more sophisticated:

(i) First, a user somehow uploaded a clip, and

(ii) Found out his clip's URL, which he passed along via email to a friend, on a blog, or a mainstream website.

(iii) More users followed this link and felt that they can use YouTube to share videos. Content began to build up.

(iv) Another user followed the link and, after watching the clip, also watched other related or recommended content promoted on the page.

Turning YouTube from an experiment into a profitable corporation will require Chad and Steve to steer the company through legal disputes, employ more personnel than they have now, negotiate with the biggest ad and media companies in the world, maintain their unique identity without getting swallowed up by Google, please shareholders, manage public relations and flawlessly execute a thousand other tasks that far more experienced executives have flubbed. At the same time, Chad has to make time for his wife and two small children, Steve needs to buy a car to replace his Jeep, and the broadband in the YouTube office is so slow, it takes forever to watch their own site. Can the duo handle all this?

It's hard to imagine Chad and Steve sitting through endless meetings on safe-harbor laws. They are too young, too creative and—in Steve's case, at least—too restless. They usually mull on questions of

what they will do next, blandly stating their hopes to "improve the product," as Chad puts it. But many of their friends feel that the actual crisis is coming. And the actual crisis for an entrepreneur is: What is this all about? Did I just make the most money in my life ever? And why? Am I going to start setting up my family office and manage my investments? Can I take more risks?

This is a very old question—one all newly wealthy people face when the market rewards them. Chad and Steve do not yet have an answer. They may have built a website that changed the online world in 2006, but they are still learning when to leave the party.

COMPREHENSION

  (i) According to the author, what is the tradition of Silicon Valley?
 (ii) Why are Ched Hurley and Steve Chen 'pre-moguls' and 'almost tycoon?'
(iii) What is secret of success for YouTube.com?
 (iv) What are the general doubts and suspicions about the lasting success of YouTube.com?

Exercise 12

VOCABULARY

Using a dictionary, find the meanings of the following:
  (i) Restraint
 (ii) Foreshadow:
(iii) Flawless:
 (iv) Mull:
  (v) Demigods:
 (vi) Public relations:

Exercise 13 Write definitions for the following:
  (i) Downloading is _____
 (ii) Uploading is _____
(iii) Webcontent is _____
 (iv) Video browsing is _____
  (v) A broadband is _____
 (vi) A URL is _____

SIMPLE FUTURE

"Turning YouTube from a sensational rumpus to a profitable corporation *will require* Chad and Steve to steer the company through legal disputes…" *Will require* is an example of simple future here.

We use the future simple (will with the infinitive) for:

Speaking of a decision that we make as we speak (I'll go to the mall today; I will not come to the theatre tonight.)

To talk about what we know or think will happen in the future:

- He'll turn thirty-five next month.
- Will he listen to me? I don't think he will.

For questions, requests, promises and offers:

- Will you come home early this evening?
- I'll do whatever I can to help you.

SPEAKING

Role Play

Along with your partner, develop a scheme to float your own dotcom business. You can talk about the following:

- the kind of business that would be
- what resources do you need to start (capital, support system, government permission, etc.)
- time required
- expected problems

Let us Revise
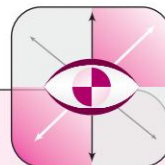
(a) Using the words given in the box below, fill in the blanks with appropriate adverbs:

mostly	obviously	approximately	flatly extremely	considerably
hardly	thoroughly			

(i) Because of this disturbance, I could _____ sleep last night.
(ii) Wash the beaker _____ before starting the experiment.
(iii) The metal is _____ found in the eastern part of the country.
(iv) Mix _____ the same quantity of the two liquids.
(v) Their request to start the project was _____ denied by the authorities.
(vi) He did not respond to my calls; _____ he is avoiding me.
(vii) The company has grown _____ during the past few years.
(viii) This liquid boils at _____ high temperature.

Exhibit 4.3

(b) Collect information on three successful dotcom ventures in India. Organise the data as follows:

Name of the dotcom	Year of establishment	Founder's name	Area of specialisation	Standing vis-à-vis competitors	Merits	Limitations

Answer Key
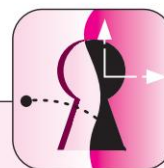
Exercise 1

(i) (b) (ii) (d) (iii) (f) (iv) (a) (v) (c) (vi) (e)
(vii) (h) (viii) (g)

Exercise 5

(i) (c) (ii) (e) (iii) (f) (iv) (a) (v) (d) (vi) (g)
(vii) (b) (viii) (h)

Exercise 9

(i) multilingual   (ii) defunct   (iii) susceptible
(iv) collaborative   (v) server

Exercise 11

(i) individual   (ii) unreliability (iii) neutrality
(iv) praised   (v) formerly

Let us revise

(i) hardly   (ii) thoroughly   (iii) mostly
(iv) approximately   (v) flatly   (vi) obviously
(vii) considerably   (viii) extremely
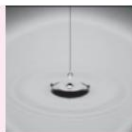
CHAPTER 5

Our Environment: Warming up to Prepositions

CHAPTER OUTLINE

In this chapter you will learn about
Asking and giving advice
Vocabulary related to advertising and environment
The following elements of grammar:
- Prepositions
- Gerund and Infinitives
- Imperatives

Making a poster for a social cause

Let Us Discuss

- Of what make is your watch? What are the features you look for in a watch?
- Nowadays, many watch companies use celebrities to endorse their products. What do you think of this trend? Would you buy a watch because of its celebrity attachment?

Exercise 1) Match the by-lines from advertisements with their products

A	B
(i) Connecting the unconnected	(a) Airline
(ii) 22 destinations across Europe	(b) Motorbike
(iii) Liquid technology. Solid picture	(c) Locking systems
(iv) Race your spirit	(d) Television
(v) Your security blanket	(e) Cell phone

Reading 1

Read the given advertisement and answer the questions given below:

TAG Heuer can be traced back *to* the year 1860. It was not long *before* TAG Heuer watches became associated *with* superior timekeeping. Edouard Heuer founded his company, TAG Heuer, which set the standard *for* precision timepieces. The watchmakers of TAG Heuer helped *to* develop innovative stopwatches, chronographs, and water-resistant watch models *at* this time. In 1882 TAG Heuer patents the first chronograph models.

TAG Heuer has provided official timekeeping services *for* a variety *of* sporting events, including the 1920 Olympic Games. Other sporting events sponsored *by* TAG Heuer 1 include the FIA Formula 1 World Championship auto racing (*since* 1969) and the FIS Ski World Cup (*since* 1992). TAG Heuer has also provided timekeeping *with* top-rated ski resorts worldwide, including *in* the Vail, Colorado, French, Italian, Austrian and the Swiss Alps. TAG Heuer watches have prominently been associated *with* auto racing. TAG Heuer developed the first automobile dashboard clock *in* 1911. TAG Heuer has sponsored formula One racing drivers such as Niki Lauda, Emerson Fittipaldi, Jacky Ickx, Michael Schumacher, and Ayrton Senna. Since 1986, the McLaren Formula 1 racing team has been endorsed *by* TAG Heuer watches. Recently, Tiger Woods has joined the TAG Heuer endorsement team.

VOCABULARY

Guess the meanings of the following words through their context. Check your answers by using a standard dictionary.

Traced back:
Stopwatch:
Chronographs**:**
Precision timepieces:
Endorsement:

WRITING: ASKING AND GIVING ADVICE

Read the following letters asking for advice:

Letter Writing

Dear Atulya
Hope things are fine at your end. I am doing well and would soon be leaving for Switzerland as an intern at the University of Zurich for three months.

   Since this is my very first trip abroad, I need your advice on a few things. Firstly, please tell me what kind of clothes I should bring along with me. I know Switzerland is a very cold country with frequent snowfall, therefore, I'll also need your advice on what kind of shoes I should wear during my stay.

   Lastly, I need to buy an excellent watch for myself. As you must be aware of, nowadays almost all the international makes are easily available in India, and I would like to buy a watch before starting from Chennai. Since you have been living in Germany for nearly a year, I am sure you are in a good position to advise me.

   I look forward to your response.

With lots of love,
Indraneel

GIVING ADVICE

Respond to the above letter. Cover all the major areas of enquiry, and keep your tone friendly.

VOCABULARY

Advertisers use several means of attracting the consumers. Give suitable words from the box given below for the following:

Cold call	toll free	sponsorship	discount	sale
	Publicity	marketing	public relations	

  (i) Making a call on a given number to a company for product enquiry without fee or charges
 (ii) Making random calls to strangers for promoting products and services
(iii) The activity of presenting, advertising and selling a company's products in the best possible way
 (iv) The attention that is given to something by media, etc
  (v) The department which ensures that the company image is good and its reputation undamaged
 (vi) The limited period during which shops sell their products in large amounts and on low rates
(vii) To sell a product on low or attractive rates
(viii) A person or company that pays for publicity of a product in return for publicity
     Now check your answer with your partner. Consult a dictionary if necessary

PREPOSITIONS

Prepositions are those words that are placed before a noun phrase or sometimes before an –*ing* clause to form a preposition phrase.

1. Using prepositions   Although the number of prepositions in English is fixed, you must have probably found that it is not easy to use them correctly. Precisely because there are only a few of them, they are used extremely frequently and in various combinations (e.g. verb + preposition, adjective + preposition, noun + preposition, and preposition + noun).
     Note that the use of prepositions is wrong in these two examples:

- The researchers have found a number of solutions *of* the problem./(solutions to)
- Everyone has great respect *to* Professor Ramanathan./(respect for)
- I feel in top of the world. (on top of the world)

2. Read the above text again and notice the use of prepositions given in italics.

Prepositional Combinations

You can use a preposition with a noun, a verb, and/or an adjective. Look at the following examples:
- *In*/Prof. Priya's view, some students are incapable *of* learning their lessons *in* the absence *of* an effective method *of* evaluation.
- Due *to* inflation, the recent recruitment committee could hire only fifteen people.

Some commonly used combinations in academic communication are given below:

With nouns: at a glance	in due course	solution to	on average	on the whole
With verbs: comment on	account for	convince of	stem from	distinguish from
With adjectives: confused by	related to	devoted to	aware of	satisfied with

Zero Prepositions

Some verbs take a direct object and you should not use a preposition after them, for example:
- In the meeting, we *discussed* various issues related to the future development of robots.
- Our institute *emphasises* the excellence and applicability of industry-oriented research.

Caution

Note the use of the following:
- The shop is right opposite the college (opposite and **not** opposite to)
- I will return your book as early as possible (return and **not** return back)
- She could not cope with the workload. (cope with and **not** cope up with)
- Despite the problems, we managed to submit the assignment as per the schedule (despite and **not** despite of)
- The book comprises ten chapters (comprises and **not** comprises of).
- I am going to discuss some principles of particle physics (discuss **not** discuss about)

Here is a list of some very common prepositions:

aboard	but	since
above	by	through, throughout
across	despite	till
after	down	to
against	during	toward, towards
along	except	under
amid, amidst	for	unlike

(Contd)

(*Contd*)

among, amongst	from	until
apropos	in, into	With, within, without
around	inside	
as	like	
at	near, nearby	
before	next	
behind	notwithstanding	
below	of	
beneath	off	
beside	on, onto	
besides	over	
between	past	
beyond	round	

Can we end a sentence with a preposition?

Consider the following two sentences:
- I can easily see through such pretensions.
- Such pretensions can be easily seen through.

Which one is the faulty sentence?

The answer is: neither of the two. In fact, in communicative English it is perfectly acceptable to use preposition at the end of the sentence. Look at more examples:
- That's where I bought my car from.
- What are you looking at?
- He's a person we all look up to.

While traditionally there has been a ban on using preposition at the end of a sentence, nowadays this rule is more flouted than accepted. However, in formal writing, it is still safer to observe the rule.

So, do NOT use a preposition at the end of a sentence when you are writing a formal letter or a business/scientific report.

Prepositional Phrases

A prepositional phrase consists of a preposition followed by a prepositional complement. The complement is usually a noun phrases, but can also be another element as seen below:
- Meet me *at the college.* (as noun phrase).
- I was surprised *at what happened then.* (preposition + wh-clause)
- Aneesh tried to predict the time *by looking at the sky.* (preposition + -ing clause)
- We may need the maid's services *in the morning.* (as adverbials)
- Before sunrise is when I like to go for a walk. (functioning as subject)

Exercise 2 Fill in the blanks using the prepositional phrases given below:

In spite of	out of	except for	instead of
As for	on top of	because of	up to

(i) _____ his bad habits, Suresh's family had to face plenty of humiliation

(ii) _____ her best efforts, she could not pass the examination.

(iii) _____ Kashi's project, it was not even short-listed for the competition.

(iv) Sanjana should have received the prize _____ Geethana.

(v) Uma has been _____ favour with her boss for a long time.

(vi) Ever since Suyog got the admission in this college, he has been _____ the world.

(vii) It is _____ the authorities to take the necessary action.

(viii) _____ Rohan, no one else was considered for the placement.

Let Us Discuss

Pre Reading Activity

Group Work

What do you feel about global warming? Do you think it is merely the government's responsibility to address this issue? Should citizens be as much responsible for this situation as those in position of power and authority? Discuss in groups.

Exercise 3 **Environment-related vocabulary**

Match the words given in column A with their meanings in column B:

A	*B*
(i) Global warming	(a) boiling
(ii) Greenhouse effect	(b) steady rise in average world temperatures
(iii) Carbon dioxide emissions	(c) changes in the weather and climate
(iv) Climatic changes	(d) destruction of forests
(v) Fossil fuels	(e) unspoilt/natural areas
(vi) Deforestation	(f) warming of the Earth's surface caused by pollution
(vii) Sweltering	(g) coal, oil, etc.
(viii) Pristine environments	(h) carbon dioxide gas from factories, cars, etc.

GLOBAL WARMING AND DEVELOPING NATIONS

Exercise 4 Fill in the blanks by using prepositions given in the list given earlier:
As dangers _____ (i) global warming spread, developing nations in Asia and Africa are predicted _____ (ii) bear the brunt of the catastrophic effects. Extreme drought, _____ (iii) which agriculture is in effect impossible, will affect about a third _____ (iv) the planet, according to the study from the Met Office's Hadley Centre for Climate Prediction and Research. Faster-than-ever melting _____ (v) glaciers has been observed in various parts of the world. For a developing and tropical country like India, where almost 60% of the economy is agriculture-driven and irrigation is dependent _____ (vi) the monsoon cycle, the situation has already become alarming.

Exhibit 5.1

Of particular concern is the melting of Gangotri glacier, the origin of the Ganges. It is receding _____ (vii) 10 to 30 meters each year. According to a recent study published in *Nature* , vanishing glaciers will adversely affect water supply in the next few decades in India and China, _____ (viii) a region which about 50–60% of the world's population. There is little doubt that melting glaciers provide a key source of water for the region in the summer months: as much as 70% of the summer flow in the Ganges and 50–60% of the flow in other major rivers

While the Ganga is drying _____ (ix), there are signs now of rising water levels in the Bhakra Nangal Dam reservoir. The melting of glaciers in the upper Himalayas has been cited as a major contributor _____ (x) this. This does not bode well for the physical environment in India. _____ (xi) 2000, there have been serious concerns over global warming attributing to the recurring cycle of annual floods and droughts in India. Even in the twenty-first century, bulk _____ (xii) Indian agriculture depends on the monsoon cycle, and the natural sources like rivers and wells are the source of water for majority of the Indian population. Glacial Lake Outburst Floods (GLOF) have been predicted _____ (xiii) melting of snow in the North-Eastern parts of India, sending millions of gallons of deadly floodwaters swirling down valleys and putting tens of thousands of lives at risk. Located at a height of 3,888 metres, the Amarnath glacier, which feeds mineral-rich water to the cave holding the stalagmite worshipped by many Hindus, has been vanishing at a rate _____ (xiv) more than 15 metres per year. Temperature changes in the North will devastate crops in the tropics, where most of the world's poor and hungry people live. A half-degree temperature increase would cause a drop/of 20 to 40 percent in the paddy yields in Southeast Asia, according _____ (xv) the Intergovernmental Panel on Climate Change (IPCC), drawing on findings from the U.S. Department of Agriculture, NASA's Goddard Institute for Space Studies and other research centers. Plant biologists reporting to the IPCC also project the same heat rise would cut India's wheat yield by up to 20 percent.

The situation for India already looks alarming.

In or *At* ?

Use *in* when you refer to being inside a building/place:
- There are sixty chairs *in* this classroom.
- Shall we wait *in* the car?

We use *at* when we mean what actually happens there:
- I was *at* the movies. (meaning cinema theatre)
- Is he *at* the airport?

VOCABULARY

Exercise 5 Select the meaning closest to the given word:
  (i) Brunt: burnt, effect, bear
  (ii) Catastrophic: disastrous, memorable, confusing
  (iii) Swirling: charging ahead, moving straight, move in circles
  (iv) Stalagmite: a piece of rock, form of ice, tunnel

Exercise 6 *Correct the errors of preposition in the following sentences*:
  (i) He has shown his adherence of this principle.
  (ii) The nurse will assist the doctor to do the operation.
  (iii) Please comment to this as fast as possible.
  (iv) The budget is not conducive of the people from the middle-class.
  (v) The service ended by a prayer.
  (vi) The singer was greeted by favourable reception with the public.
  (vii) She loved her mother more in comparison of her father.

  (viii) He is in search for a treatment for cancer.
  (ix) The public is in support for the leader.
  (x) This material is inferior than the one we saw in the other shop.
  (xi) He has good knowledge on this subject.
  (xii) Do not be oblivious to the suffering of your fellow-men.
  (xiii) The Chinese prefer rice than other cereals.
  (xiv) He has a tendency for overreacting.
  (xv) Be tolerant to other people's shortcomings.
  (xvi) The candidates were judged on certain criteria.

II. GERUND AND INFINITIVES

Gerunds

A gerund is a verbal that ends in -*ing* and functions as a noun. The term *verbal* indicates that a gerund, like the other two kinds of verbals, is based on a verb and therefore expresses action or a state of being. However, since a gerund functions as a noun, it occupies some positions in a sentence that a noun ordinarily would, for example: subject, direct object, subject complement, and object of preposition.

Gerund as subject:

- *Traveling* might satisfy your desire for new experiences.

Gerund as direct object:

- They do not appreciate my *singing.*

Gerund as subject complement:

- The student's favorite activity is *sleeping*.

Gerund as object of preposition:

- The police arrested him for *speeding*.

Infinitives

An infinitive is a verbal consisting of the word *to* plus a verb (in its simplest "stem" form) and functioning as a noun, adjective, or adverb. The term *verbal* indicates that an infinitive, like the other two kinds of verbals, is based on a verb and therefore expresses action or a state of being. However, the infinitive may function as a subject, direct object, subject complement, adjective, or adverb in a sentence. Although an infinitive is easy to locate because of the/*to* + verb form, deciding what function it has in a sentence can sometimes be confusing. Here are a few examples:

- *To wait* seemed foolish when decisive action was required. (subject)
- Everyone wanted *to go*. (direct object)
- His ambition is *to fly*. (subject complement)
- He lacked the strength *to resist*. (adjective)
- We must study *to learn*. (adverb)

<table>
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Caution

Do not to confuse an infinitive—a verbal consisting of *to* plus a verb—with a prepositional phrase beginning with *to*, which consists of *to* plus a noun or pronoun and any modifiers.

</td><td>

What are Split Infinitives?

Split infinitives occur when additional words are included between *to* and the verb in an infinitive. Some of the examples are:
- He *used* continually *to* refer to the thesaurus.
- The committee is going to compulsorily purchase the office space.

Although many readers find a single adverb splitting the infinitive to be acceptable, this practice should be avoided in formal writing.

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Exercise 7   Fill in the blanks using the appropriate form of the verbs — *gerund* or *infinitive*— in the following sentences:
  (i) _____ is as important as exercise for losing faith.
 (ii) May I know how _____ (solve) this problem?
(iii) Your English seems _____ (improve) a lot.
 (iv) All the arrangements have been made _____ (help) the earthquake affected country.
  (v) Hello. Good _____ (see) you so well.
 (vi) You are requested _____ (switch) off your cell phones during the lecture.
(vii) She doesn't seem _____ (mind) her situation at all.
(viii) _____ (tap) the desk with her pencil, Sujatha was lost in her thoughts.
 (ix) _____ (travel) in this season may not be such a good plan.
  (x) Please don't hesitate _____ (call)

Imperatives

We use **imperatives** for different reasons, such as telling people what to do, giving instructions and advice, making recommendations and suggestions, and for making offers.
- *Come* in and *sit* down, please.
- *Don't open* the door—it's so hot.
- *Keep* the clothes in the wardrobe.
- *Don't* leave the child unattended.
- *Open* your books on page 20.
- *Do not* ignore these symptoms**.**

Emphatic Imperative   We can make an emphatic **imperative** with **do (or do not) + imperative**. This is common in polite requests, complaints and apologies.
- Do not litter this area.
- Do not smoke here.

Passive Imperative   To tell people to arrange for things to be done to them, we often use **get + past participle**.
- *Get treated* for fever.
- *Get* yourself a new set of tools.

The **imperative** does not usually have a subject, but we can use a noun or pronoun to make it clear who we are speaking to.

Boil the vegetables (or) Shivna, *boil* the vegetables.

Let Us Discuss

- What do you think about the pollution of our rivers and lakes?
- What are the measures that can be taken to increase public consciousness in order to prevent this?

Read the following and answer the questions below:

Reading 3

The Yamuna River, on whose banks the city of Delhi was born more than 2,000 years ago, is a case study in the water management crisis confronting India.

According to our legends, the Yamuna is considered to be a river that fell from heaven to earth. Today, it is a foul portrait of crippled infrastructure —and yet, still worshiped. From the bridges that soar across the river, the devotees toss coins and sweets. They scatter the ashes of their dead lovingly wrapped in plastic. In New Delhi, the Yamuna itself is clinically dead.

As the Yamuna enters the capital, still relatively clean from its descent from atop the Himalayas, the city's public water agency, the New Delhi Jal Board, extracts 229 million gallons every day from the river, its largest single source of drinking water.

As the Yamuna leaves the city, it becomes the major drain for New Delhi's waste. Residents pour 950 million gallons of sewage into the river each day.

As it courses through the capital, the river becomes a noxious black thread. Clumps of raw sewage float on top, and methane gas gurgles on the surface. It is hardly safe for fish, let alone bathing or drinking. A government audit found last year that the level of fecal coliform, one measure of filth, in the Yamuna was 100,000 times the safe limit for bathing.

Carrying the capital's waste on its back, the Yamuna meanders south to cities like Mathura and Agra, home to the Taj Mahal. It is their principal source of drinking water, too. New Delhi's downstream neighbors are forced to treat the water heavily, hiking up the cost.

The situation for New Delhi and all of India is only expected to worsen. As our rivers get more polluted, our water needs keep growing. By 2050, official projections indicate, demand will more than double, and exceed the 1.4 trillion cubic yards that India has at its disposal.

Yet the most remarkable paradox of the city's water crisis is that New Delhi is not entirely lacking in water. The problem is distribution, hampered by a feeble infrastructure and a lack of resources, says Arun Mathur, chief executive of the Jal Board.

The Jal Board estimates that consumers pay less than half of the actual cost of water. Raising the rates is unrealistic for now, as Mr. Mathur well knows. "It would be easier to ask people to pay up more if we can make water abundantly available," he said. A proposal to privatise water supply in some neighborhoods met with stiff opposition last year and was dropped.

So the city's pipe network remains an unorganised mess. This means that like most of the resources in our country, some people will undeservedly have more than their/fellow beings.

Exhibit 5.2

VOCABULARY

Clinically dead: Declared dead (as though by a team of doctors)
Meanders: makes it way
Fecal coliform: bacteria formed in foeces or excreta (note the adjectival form of faeces)
Paradox: contradiction

Exercise 8   Terms like clinically dead are adapted from medical terminology. Here this expression is used to suggest the extent to which the river Yamuna has been polluted. Can you search for more such words that express gross deterioration of our rivers?

Exercise 9   **Poster Campaign**
In the above text you have read about two socially relevant issues, viz., the increasing pollution of the river Yamuna, and water crisis in the city of Delhi. Imagine you are a member of an NGO. Based on the above issues, draw up posters and notices to make the general public more aware of the problems.

Save water, save Yamuna!
Do not throw plastic covers in the river.
_____

Exercise 10 *Decide whether these statements are true or false according to the above article:*
  (i) The river Yamuna is the principal source of water for the city of Delhi.
  (ii) The level of chloroform in the river Yamuna is very high.
 (iii) New Delhi terribly lacks in water.
 (iv) Poor infrastructure is the major cause of Delhi's water problems.
  (v) Dirt water from the river Yamuna need not be treated for safe drinking outside Delhi.

SPEAKING

Role Play

Assume the role of a journalist and interview an environmentalist on effects of global warming on our country. Focus on the following areas:
- Causes
- Preventions
- Public awareness and role of media

Let us Revise
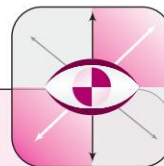
1. *Insert prepositions in the following blanks:*
The spotted deer and the blackbuck population of Guindy National Park (GNP) has gone up _____ (i) one percent, according _____ (ii) a census conducted _____ (iii) forest officials _____ (iv) Sunday. The census found the spotted deer population _____ (v) be 2,650 _____ (vi) the GNP and adjoining areas—the IIT, Madras and the Raj Bhavan campuses. The blackbuck population was put _____ (vii) 405, with only 10 sighted _____ (viii) the IIT campus.

Early morning, 14 teams set out _____ (ix) count the deer heads. Each team moved perpendicular _____ (x) a segment demarcated _____ (xi) it. The teams, comprising forest officials, volunteers of nature clubs _____ (xii) colleges and universities and those _____ (xiii) wildlife societies, moved _____ (xiv) west to east, tallying the number of deer they found _____ (xv) their way.

Forest officials said that the King Transect method used _____ (xvi) the census would only reveal the numbers close _____ (xvii) the actual figure. The thick forest cover _____ (xviii) certain stretches _____ (xix) the park was an impediment as the teams made their way _____ (xx) the deer habitat.

(From *Guindy National Park/ Official Conduct Census*. **The Hindu**. March 1, 2004. p.3)

2. *Match the following idioms and phrases in column A with their meanings in column B*:

A	B
(a) Something is in the air	(i) fails
(b) Clear the air	(ii) fall as low as possible
(c) Bites the dust	(iii) belong to a very high social class
(d) Hit rock bottom	(iv) sort out misunderstandings and problems
(e) Upper-crust	(v) to have no touch with reality
(f) Live on another planet	(vi) something significant is about to happen

3. Rewrite the sentences changing them from infinitive to gerund form:
  (i) To diet is as important for losing weight as to exercise.
 (ii) To stop this agitation is next to possible.
(iii) To overcome these obstacles, we would require great deal of planning and resources.
 (iv) To multi-task requires great amount of energy.
  (v) To delegate this job would not be an easy task.
 (vi) To transform these sick industries into functional ones, we would need huge amounts of financial aid.
(vii) To find a replacement for our chief engineer is going to be very difficult.

Answer Key
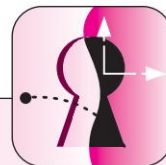
Exercise 1
  (i) (e)   (ii) (a)   (iii) (d)   (iv) (b)   (v) (c)

Exercise 2
  (i) because of   (ii) in spite of   (iii) as for
 (iv) instead of   (v) out of   (vi) on top of
(vii) up to   (viii) except for

Exercise 3
  (i) (b)   (ii) (f)   (iii) (h)   (iv) (c)   (v) (g)   (vi) (d)   (vii) (a)
(viii) e

Exercise 4
  (i) of   (ii) to   (iii) in   (iv) of   (v) of   (vi) upon
(vii) by   (viii) across   (ix) up   (x) to   (xi) since   (xii) of
(xiii) due to (xiv) of   (xv) to

Exercise 5
  (i) effect   (ii) disastrous   (iii) move in circles
 (iv) a piece of rock

Exercise 6
  (i) to   (ii) in doing (iii) on   (iv) to   (v) with   (vi) with   (vii) with

(viii) of   (ix) of   (x) to   (xi) of   (xii) of   (xiii) to
(xiv) to overreact   (xv) of   (xvi) by

Exercise 7

(i) hurrying   (ii) to solve   (iii) to have improved
(iv) to help   (v) to see   (vi) to switch
(vii) to mind   (viii) tapping   (ix) travelling
(x) to call

Exercise 10

(i) true   (ii) false   (iii) false   (iv) true   (v) false

Let us revise

(1) (i) by   (ii) to   (iii) by   (iv) on   (v) to   (vi) in   (vii) at   (viii) in
     (ix) to   (x) to   (xi) for   (xii) from (xiii) from (xiv) from (xv) along
     (xvi) for   (xvii) to   (xviii) at   (xix) of   (xx) through

(2) (a) (vi)   (b) (iv)   (c) (i)   (d) (ii)   (e) (iii)   (f) (v)

(3) (i) Dieting is as important for losing weight as exercising.
     (ii) Stopping this agitation is next to impossible.
     (iii) Overcoming these obstacles would require great deal of planning and resources.
     (iv) Multi-tasking requires great amount of energy.
     (v) Delegating this job requires great amount of energy.
     (vi) Transforming these sick industries into functional ones, we would need huge amounts of financial aid.
     (vii) Finding a replacement for our chief engineer is going to be very difficult.

PART B

Focus on Skills: Reading and Writing

CHAPTER 6	CHAPTER 7	CHAPTER 8
The World is Changing Around Us: Learning to Read About It	The Processes of Living: Arts, Lifestyle and Entertainment	Celebrating Human Spirit, Values and Determination… And Learning to Write About Them

CHAPTER 9	CHAPTER 10	CHAPTER 11
Let us travel… in the World of the Written Word	Pioneers and Innovations… and the Language that's 'Cool'	Minding Your Business with Effective Business Communication

Focus on Skills:
Reading and Writing

Language learning and teaching generally comprises acquaintance with four skills, viz., listening, speaking, reading and writing. In this part, the major focus rests on developing the latter three skills. (Plenty of listening activities are provided online).

It is generally felt that speaking as a skill is a much neglected one. In order to fill this gap, there are a number of tasks and activities devoted to develop this skill. These include individual presentations, pair and group works. All the activities aim towards confidence building among the students so as to enable them to be effective speakers of the English language.

Reading is a cognitive skill which requires a reader to not only read for information, but also for in depth understanding. It may involve skills such as predicting the content, scanning for particular information; skimming to get the gist of a text, or comprehending for answering text-based questions. In this part, a reader gets to know all these, along with advanced academic skills like note-making, transferring of information from a text to graphical representation, sequencing of sentences, providing titles for paragraphs, and filling the gaps with appropriate missing words.

Writing is yet again a complex skill which requires familiarity with the concepts of cohesion, coherence, paragraphing, description, etc. In this part, effort has been made to expose the learners to a variety of activities which include essay writing, summarising, making recommendations as well as writing for business purposes. Since this book aims to facilitate the technical communicative ability of students, writing is focused on formal and academic situations.

An important feature of this book is inclusion of samples from students' writing work. This is done to make the learners aware of the kinds of mistakes they make while writing. The corrected examples will give the students an insight into communicating more effectively.

In addition to concentrating on the above skills, this part also gives sufficient attention to the necessary language skills, that is, grammar and vocabulary, which have been the focus in Part A.
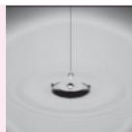
CHAPTER 6

The World is Changing Around Us: Learning to Read About It

CHAPTER OUTLINE

In this chapter you will learn about the following academic reading skills:

 (i) skimming
(ii) scanning,
(iii) predicting the content of a given passage
(iv) transferring of information from texts to graph and vice versa
 (v) making verbs

DEFINITIONS

Skimming is looking through a text very quickly to understand the main topics and arguments.

Scanning is looking for specific details to answer questions that you have.

Predicting is guessing the content of a text based on your knowledge of the subject, the author's area of expertise and opinions, and the context.

I. Skimming

Getting the gist of the text being read.

Let Us Discuss

For your notebook
- Select some headlines from newspapers all concerned with shift in global temperature.
- What do you know about icebergs? Find out information about some famous icebergs.
- What are the possible damages that can occur when icebergs start melting?

Read the following text and answer the questions given below:

1. We are melting like the *Wicked Witch of the West*. Soon there will be nothing left of us, but our hat. Globally, there's a persistent trickling as enormities of ice unfreeze. The Greenland ice sheet loses 13 trillion gallons of fresh water a year, contributing a measurable percentage to the world's annual sea-level rise. Every year, the level of the sea goes up about the thickness of a dime. And every year, first attracting notice in the seventies, picking up speed in the steamy eighties and steamier nineties, giant icebergs begin splashing into the news.

2. Over the years, a number of Rhode Islands and Delawares of ice, and even a Connecticut, drift into type and out again. The more notable ones are sometimes called "celebrity icebergs," and in the cold Southern Ocean an occasional berg has a longevity in the spotlight that a human celebrity could envy. Iceberg C-2 as scientists labeled it—drifts for 12 years and 5,700 miles, nearly circum-navigating Antarctica, before breaking into pieces of non-newsworthy sise.

Exhibit 6.1

3. In recent times I did a lot of reading about icebergs, some of it at the library of a western university where the air outdoors was so full of smoke from forest fires that people were going around in gas masks. To the old question of whether we will end in fire or ice, the answer now seems to be: both. Fire's photogenic, media-friendly qualities may cause us sometimes to overlook its counterpart and to forget the spectacular entrance ice made onto the modern apocalyptic scene just 90 years ago. Ice plus the *Titanic* spawned nightmares of disaster that never seem to fade.

(*Source: Terminal Ice* by Ian Frasier. Sourced from *The Best American Magazine Writing 2003*. New York: Harper Collins)

Now answer the questions given below:

(a) What is the main idea of the above passage? Identify at least five terms and expressions to support your answer.
(b) From the information given in paragraph 1, when did we start noticing the phenomenon of increasing global heat?
(c) What is the tone of the passage? Give examples to justify your answer.
(d) Give a suitable title to the complete passage.

VOCABULARY AND CULTURE-SPECIFIC CONCEPTS

Wicked Witch of the West: A notorious witch from the fairy tale *The Wizard of Oz*
Thickness of a dime: As thick as a dime (a coin-like currency)
Picking up speed in the steamy eighties and steamier nineties: gaining momentum during the eighties and nineties
Celebrity icebergs: famous icebergs
End in fire or ice: The religious question whether the world will end because of extreme heat or cold
Fire's photogenic, media-friendly qualities: Fire makes an attractive picture
Ice plus the Titanic: Ice can cause enormous damage. Here the reference is to the legendary ship Titanic which sank after colliding against a huge iceberg.

II. Scanning

Reading for specific information

Let Us Discuss

You are going to read an advertisement on MR Swift, a recently launched car in the Indian market. What, in your opinion, are the features which make a car attractive to a potential buyer? Discuss.

Pre Reading Activity

Read the following review of a newly launched car and answer the questions given below:

Exhibit 6.2

MR Swift

Price   **Rs. 3,40,000 – 3,90,000**

For   With the Swift you get lots of power and kit for the money. It is fun to drive and stylish, too.

Against   There is limited luggage space and air-conditioning is not an option on the 1.3 models.

On the road	*Ownership*	*In the cabin*
Performance***** Sprightly petrol engines; refined diesel motor	Buying & owning**** List price undercuts many rivals	Behind the wheel**** Smart appearance
Ride & handling*** Neat and tidy handling; jiggly on rougher roads	Quality & reliability*** Some shiny plastics; fairly solidly constructed	Space &practicality*** Good space for four; not enough for luggage
Refinement*** Intrusive suspension clatter over broken surfaces	Safety & security*** Performs well in a collision	Equipment*** Well-specified for money

VOCABULARY

Exercise 1

Select the meaning which comes closest to the given word.
Sprightly: noisy, shiny, energetic
Undercut: more, reduce, equal
Intrusive: rough, heavy, unwelcome
Clatter: shiny, noisy, rough

Exercise 2

Scanning for specific information
Answer the following:
  (i) How is MR Swift reviewed for performance?
 (ii) Does the car have enough space for luggage?
(iii) How does MR Swift compare pricewise with other cars?
 (iv) What is the star rating of the car for its appearance?
  (v) Can MR Swift ride smoothly on uneven roads?

VOCABULARY

Exercise 3

Match the words in column 1 with their meanings in column 2:

Word	Meaning
(i) Digital	(a) Acronym for local area networks
(ii) Server application	(b) Privately owned software
(iii) Proprietary software	(c) In object linking and embedding, the program that creates a source document.
(iv) LAN	(d) Transmission of programme and data files
(v) Bandwidth	(e) A system in which data is sampled at regular, discrete intervals
(vi) File transfer	(f) A communications, data exchange, and resource-sharing system created by linking two or more computers
(vii) Network	(g) Vital to an organisation's basic function
(viii) Mission critical	(h) The difference between the lowest and the highest frequencies that can be accommodated in a given communication channel.

Read the following text and answer the questions given below:

Reading 3

VSATs are a preferred option for fast connectivity in remote locations. However, it becomes a challenge for a VSAT service provider when the network consists of VSATs from different vendors. As each VSAT vendor provides its own proprietary software, service providers do not get a unified view of different VSATs in their network. Tata Net, the VSAT network division of the Tata group, faced this problem when the company had to manage seven VSATs from multiple vendors.

Because the VSATs came with their own software, managing bandwidth across several locations and customers was tough. Additionally, the organisation was growing rapidly, especially after it decided to widen its focus to non-Tata customers. This focus saw the company having to manage a network of around a thousand VSATs with a client base of 75 customers. Apart from basic connectivity services, Tata Net also provides mission-critical services such as VoIP, file transfer and the monitoring of enterprise applications like SAP and Siebel to its customers. Since most of these services were mission-critical, Tata Net had to ensure always-on connectivity and optimise bandwidth across VSAT networks.

The complexity rose because each customer had unique requirements. Around 250 VSATs addressed the requirements of the broking community, which had a high number of concurrent users. On the other hand, corporates had different needs since enterprise applications such as ERP have high bandwidth requirements. There were specific applications such as video conferencing, digital cinemas and village telephony services in states such as Andhra Pradesh, which meant that the complexity was immense. Without a unified view of applications across VSATs, the task of prioritising bandwidth was difficult.

With its customer list in diverse industries was growing at a fast clip, Tata Net began looking for a network management tool that would provide the company with a unified view of its different VSAT networks. After looking at a range of alternatives, the company finally selected the SAAZ network management (NMS), a network management from Zenith Infotech. The decision in favour of SAAZ was aided by the fact that Senith installed an evaluation copy on Tata Net's network. The flexibility of the software and its ability to meet the service provider's network monitoring and reporting needs swung the deal in Zenith's favour.

Implementing the product proved to be a breeze—the process took only two weeks. Tata Net currently uses the SAAZ NMS to monitor link status across India with respect to link up/down statistics as well as bandwidth and port utilisation. NMSs are crucial to the management of VSATs as they can not only ensure bandwidth availability but also alert the staff in case of a link failing. In addition to the unified view, the deployment of SAAZ also meant that Tata Net could provide details of connectivity and bandwidth to its customers in a proactive manner.

(*Source: Express Computer,* 8 November 2004)

VOCABULARY

Find the expansion of the following abbreviations:
VSAT
VoIP
ERP
SAAZ

DEFINITIONS

Define and explain briefly the following terms:
   (i) A vendor is a _____
  (ii) File transfer means _____
 (iii) Video conferencing is _____
 (iv) Port utilisation means _____
  (v) A monitor link is _____

IDIOMS AND PHRASES

Know the following idioms and phrases and their meanings:

Growing at a fast clip: growing at a fast rate

Proved to be a breeze: turned out to be very easy

To swing the deal in something/somebody's favour: to work things out something in someone's favour

Proactive manner: showing a great deal of enthusiasm

Exercise 4   *Match the two columns*:

(i) Each VSAT vendor provides its own proprietary software	(a) enterprise applications such as ERP have high bandwidth requirements.
(ii) Tata Net selected the SAAZ network	(b) since most of these services were mission-critical.
(iii) NMSs are crucial to the management of VSATs	(c) the task of prioritising bandwidth was difficult.
(iv) Corporates have different needs	(d) service providers do not get a unified view of different VSATs in their network.
(v) In the absence of unified view of applications across VSATs,	(e) they ensure bandwidth availability and alert the staff in case of a link failing.
(vi) Tata Net had to ensure always-on connectivity and optimise bandwidth across VSAT networks	(f) Zenith Infotech software was flexible and able to meet the service provider's network monitoring and reporting needs.

WORD FORMATION

Making Verbs

The words unified and prioritised are verbs formed from nouns unity and priority respectively. Verbs can be formed by adding suffixes such as following:
-ise: minimise, utilise, emphasise
-en: strengthen, widen, shortened

-fy: unify, glorify, simplify
-ate: activate, complicate, suffocate
-ine: define, refine
-ish: furnish, garnish, tarnish

Exercise 5 *Using some of the suffixes given above, form verbs from the given words*:

Word	Verb
Maximum	
Long	
Circle	
Equal	
Difference	
Fast	
Economics	
Identity	
Legal	
Location	

Exercise 6 Given below are some advertisements and the extracts from six letters of application. Match each letter with the respective corresponding advertisement.

(a) We are a leading firm in stationery and offset printing and are presently looking for: Business Development Manager

Applicants should have a specialised knowledge of stationery items. They are also required to be professionally qualified in printing and have a minimum experience of three years in managing offset printing, plate making, and maintenance of machinery (Heidelberg, Roland, Bonst, Jagenburg) and accessories.

Should have the attitude to extract maximum revenue out of the existing resources, and the capability to facilitate team work and cooperation among the staff.

Fluency in English is essential. Benefits include a competitive international salary and perks.
Apply with resume to:
Basil Ulrich, Director of Human Resources

(b) Wanted: Desk Editor Medical
Science graduates to work on medical journal. 5 year experience in editing desirable.
Salary negotiable.
Send resume, along with details of present salary to:
Mitchell Buchanan, Editorial Director,
Bernard & Fisher, Inc.

(c) Shepherd & Martisa

A leading shipping company seeks the following in hotel categories:

Chef de cuisine: Should have at least three years experience with a reputable hotel/restaurant.

Baker: Should have at least three years experience

Restaurant Manager: Should have at least five years experience, along with a degree in hotel management. Applicants should be fluent in English, French, and Spanish and willing to travel for the major part of the year. In return we offer excellent salary and generous benefits including a noncontributory pension and health insurance.

(d) Marketing Manager

A leading company in consumer durable goods with headquarters in Bangalore and offices throughout the world has an opening for a marketing manager to fill a position in Ghana The Company requires qualified, experienced young women and men interested in direct marketing . Candidates should be willing to travel and work under difficult conditions. Attractive salary, benefits, sales-related bonus, and company flat and car.

Write to:

Scott Thomas,

CEO, Manchester Global Inc.

Bangalore, India

(e) A leading software company requires qualified financial advisors. Should have experience in Accounting/ Sales tax assessment and Credit and Inventory Control. Salary dependent on age and experience

Now match the given applications with the advertisements:
 (i) During my university years in Delhi, I was the editor of the college magazine for four years. In course of my work, I acquainted myself with all the departments of publishing.
 (ii) I have worked for six years as a Chartered Accountant at Wheatley Finances, Chicago.
 (iii) As you will see from the attached reference, my baking was greatly appreciated by the patrons of the Royal Palm hotel.
 (iv) I have worked in the sales offices of my former company in various parts of Asia and Africa.
 (v) The management skills that I acquired during my four years with the Flaubert Publishing House in France have equipped me to deal with the various challenges of the publishing industry.

TABLES, CHARTS, PIE-DIAGRAMS, AND FLOW-CHARTS

Academic Vocabulary: Expressions Suggesting Degree

As you know, formal writing and speaking is very different from the informal one. We do not use the same expressions in our everyday conversation or informal writing, such as emails, writing to our friends, and making notices for our college events. Formal communication requires use of certain vocabulary which makes our speech/writing more impressive and effective.

Now study the following table and answer the questions given below:

MARINE FISH – DEMERSAL VARIETIES (BELOW SURFACE) FOR SOUTH ARCOT DISTRICT IN THE STATE OF TAMIL NADU, INDIA

Number of fish produced per year

Name of the fish	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89
Sharks	929	1026	52	315	174	100	571	459
Skates & Rays	407	190	43	388	66	206	365	228
Cat fishes	15	28	2	425	18	143	206	143
Saurida & Saurus	300	279	207	194	237	85	210	418
Perches	878	625	486	360	247	51	365	316
Red Mullets	218	262	39	47	29	92	330	635
Seiaenids	409	426	128	297	217	262	310	853
Leiognathu	695	798	720	589	634	1257	1417	1068
Lactarius	80	58	29	40	50		9	243
Pomfrets	58	156	103	105	33	42	21	23
Seles	97	116	41	42	36	9	245	594
P. Prawns	226	230	490	200	192	67	141	31
N.P. Prawns	211	230	490	200	192	67	141	31
Crabs	293	616	1578	252	254	58	205	1164
Cephalopods	147	64	68	32	32	11	85	234
Miscellaneous	968	1332	1058	1027	2043	335	894	607
	6227	6537	3739	4599	4422	3345	5743	7877

(*Source:* Report prepared in 2002 by *EES Environmental Services*, Chennai, India)

Look at the list of structures given below and then fill in the blanks:
considerable/minimal/remarkable/notable/dramatic/sharp/impressive/sudden/gradual/staggering/ steep/almost negligible/remained constant/ reached a plateau decline/fall/rise/increase/decrease/drop

Exercise 7

(i) As can be seen from the given table, there was a _____ in the production of cat fish from the years '83-'84 to '84-'85.

(ii) According to the given information, the production of cephalopods has _____ over the period '84-'85 to '85-'86.

(iii) As is evident from the given data, the production of Seiaenids has shown a _____ from '85-'86 onwards.

(iv) The table demonstrates that between the periods of '81-'82 and '84-'85, there has been a _____ in the production of Saurida and Saurus.

III. TRANSFERRING INFORMATION INTO A TREE-DIAGRAM

Given below is a report on the organisation of the Wipro group of companies. Transfer the information into a tree-diagram.

Wipro Organisational Set-up

The Wipro organisation is headed by Azim Hazam Premji who is the company chairman. The organisation has eight major companies under its set-up, all of which deals with specific products, and have eight different company presidents.

Wipro was launched in the year 1945. Wipro Ltd. is the flagship company of the Azim H Premji group. The company started off originally as a manufacturer of vegetable ghee/vanaspati (hydrogenated vegetable oils), refined edible oils, toilet soaps, etc, and functions under the presidentship of P.S. Pai. Gradually, the company diversified into various other businesses. Wipro's second company, Wipro Fluid Power, is headed by M.S. Rao and was established in 1975. This company specialises in hydraulic systems. In 1981, Wipro started a path breaking company, Wipro Infotech, which specialises in computers and communication and IT solutions. It functions under the leadership of Ashok Soota, who is also the vice-president of Wipro Systems, a company launched in 1983, and dealing in software development and services.

Wipro Biomed debuted in 1989 and caters to the market in medical analytical equipment. It is helmed by Vinod Wahi who is the designated chief-executive of the company. Wipro GE, started in 1991, deals in Medical system and is headed by Vivek Paul. Within a span of two years, the company launched two other concerns, vis., Wipro Lighting in 1991, and Wipro Financial Sevices in 1992, under the dynamic leadership of Varun Nijliwan (President) and S.R. Gopalan (chief-executive), respectively. While the former looks after the market in lamps and luminaries, the latter is concerned with corporate financial services.

(*Source: World Class in India: A Casebook of Companies in Transformation* by Ghoshal *et al*)
See the diagrammatic representation of the above text at the end of this chapter

IV. READING FOR COMPREHENSION AND INFERENCE

The following passage is an extract from a story titled *Escape Velocity* by Brian N. Ball. Read it and answer the questions that follow:

I

Coming out of the submarine, Ted cowed for the house. The expected letter from the Moon Service was there, waiting for him.

His fingers were clumsy in his excitement.

Questions

(i) What do you think is Ted's occupation/hobby? What makes you think so?
(ii) Why do you think Ted's fingers were clumsy with excitement?

II

The Crest of the Moon Service was there. But Ted, saw only one word: "regret".

Regret. Everything else the letter had to say was, nothing; it was just a consolation prise. He was the top student of A.D. 2031, in the Astronomical Institute's examination, and he could go anywhere he wished now. Anywhere, except to the Moon.

"Ted," called Uncle Ed. "Ted, you there?"

Questions

(i) Why did The Crest of The Moon Service use the word "regret" in their letter to Ted?
(ii) What had Ted wanted all his life?

III

Ted put the letter away. He had gone quite cold. They had turned him down. He would never see beyond the blanket that covered the Earth. He would only see films, and hear other men's accounts of the stars. For him, there was the dull routine of filing reports and assessing. The importance of real astronomers' observations.

Everyone got a chance for Moon Service—everyone, that is, who could reach the high standards of the Service. If you could pass examinations year after year, survive all kinds of tests, do seven day's a week of hard study at the Astronomical Institute, then you were given a chance on the Moon itself.

Even, then, not everyone could stand life on the Moon. It was a peculiar life, they said. Gravity of one-sixth of Earth's made moving about altogether different. There were only a few hundred individuals there, and most of them you never saw because they were on another part of the planet.

You lived in caves under perpetual artificial light. You were aware that at any moment the gongs of an alarm might warn you that you had seconds to reach for an emergency suit with its air supply, because a meteor had shattered the roof of the dome. Eighty per cent of all trainees were sent back within weeks of landing. The strangeness of life on the Moon was too much for them.

Questions

(i) What does the expression 'turned him down' mean?
(ii) What according to you is the Moon Service?
(iii) Was it easy to live on the Moon? Give reasons for your anser.

IV

Ted was depressed. Uncle Ed sympathised with him. "It's bad. But you'll certainly get a job down here on Earth." "No." He was quite sure about that. "I couldn't take it. Not without seeing the stars, even if only for once. I could stand living the rest of my life down here if they'd only give me the chance of a few days on the Moon."

"Forget it," Uncle Ed advised. 'This sort of decision is final. You just have to live with it, Ted".

Ted thought suddenly about Uncle Ed's own life. He had thrown up a secure job to take this job at the fish farms at a tenth of the pay. Ted was determined to go his own way.

"I'm going to find out why they won't have me", he thought to himself.

Comprehension

(i) What do you understand by the phrase 'to go his own way'?
(ii) Can you predict what Ted would have done later? Write a sentence or two of your own.

SPEAKING

Discussion

Do you get influenced by reviews of products before buying? Give reasons for your answer. Organise your response according to the following table. Discuss.

Advantages of buying a product after reading a review	Disadvantages	Any other criteria which you apply before buying
(i)	(i)	(i)
(ii)	(ii)	(ii)

V. PIE DIAGRAMS

What are pie charts? A **pie chart** is a circular chart divided into sectors, illustrating relative magnitudes or frequencies. In a pie chart, the arc length of each sector (and consequently its central angle and area), is proportional to the quantity it represents.

Pie charts should be used only when the sum of all categories is meaningful, for example if they represent proportions.

Pie charts are rare in the scientific literature, but are more common in representing data related to education, business and economics.

Look at the following pie-diagram depicting the pattern of placement at an engineering college during the year 2002-'03, and then answer the questions that follow:

Pattern of Placement 2002-2003

21.10%

2.00%
5.00%

71.90%

- IT Industry
- Engineering
- Research & Development
- Management & Management Consultancy
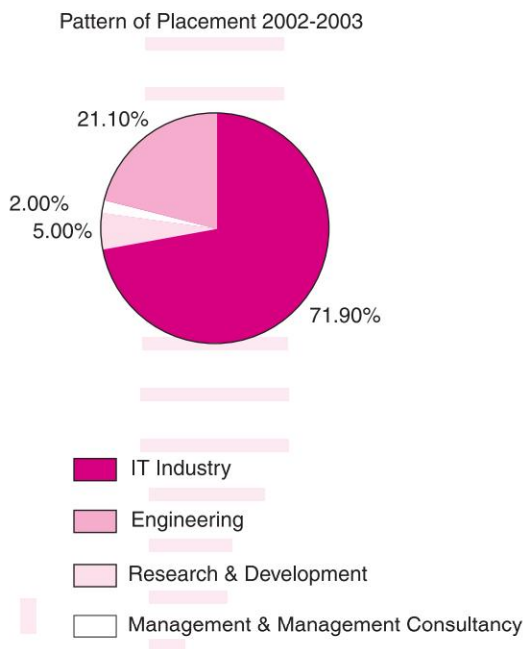
Exercise 8

Answer the following:

(i) In the year 2002-03, more students were employed by management and management consultancy as compared to Research and Development. (True/False)

(ii) Only five percent of students were placed for Engineering related jobs. (True/False)

(iii) The percentage of those employed by Engineering sector is nearly four times as those employed by Research and Development. (True/False).

(iv) In the year 2002-03, most of the candidates were recruited by the IT-related industries. (True/False)

Let us Revise
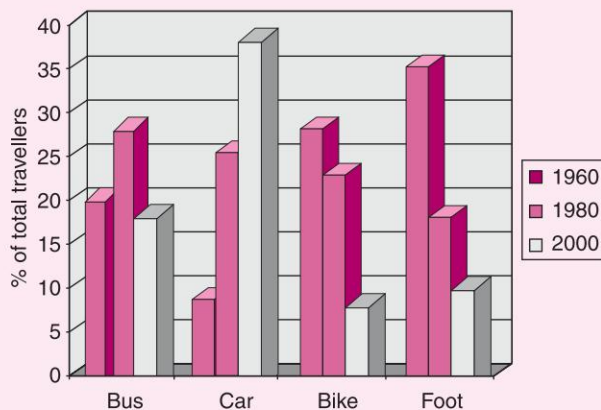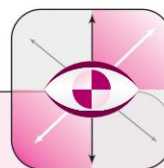
Based on the information given above, discuss with your friends the important features of transportation in that city. Using the appropriate academic vocabulary and expressions, bring out the major areas of comparison and contrasts.

(b) Fill in the text with the appropriate forms of words given in the brackets:

Beyond the Earth's atmosphere, on the other side of the sky, is a universe _____ (i) (teem) with radio _____ (ii) (emit). By studying radio waves you can learn about planets and stars and galaxies, about the _____ (iii) (composite) of great clouds of _____ (iv) (organ) molecules that drift between the stars, about the origin and _____ (v) (evolve) and fate of the universe. But all these radio emissions are natural—caused by physical processes, electron spiraling in the _____ (vi) (galaxy) magnetic field, or interstellar molecules colliding with one another, or the remote echoes of the Big Bang red-shifted from gamma rays at the origin of the universe to the tame and chill radio waves that fill all the space in our epoch.

(*Source: **Contact** by Carl Sagan*)

Answer Key
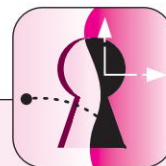
Exercise 1
Sprightly: energetic
Undercut: reduce
Intrusive: unwelcome
Clatter: noisy

Exercise 2
 (i) It is highly rated with five stars on performance. It has good petrol engines and very efficient diesel motor.
 (ii) It does not have enough space for luggage.
(iii) It is very cost-effective and undercuts all its competitors.
(iv) It has four stars.
 (v) No, it is jiggly on roads which are rough.

Exercise 3
 (i) (e)   (ii) (c)   (iii) (b)   (iv) (a)   (v) (h)   (vi) (d)   (vii) (f)
(viii) (g)

Exercise 4
 (i) (d)   (ii) (f)   (iii) (e)   (iv) (a)   (v) (c)   (vi) (b)

Exercise 5
Maximise, lengthen, circulate, equalise, differentiate, fasten, economise, identify, legalise, locate

Exercise 6
 (i) (b)   (ii) (e)   (iii) (c)   (iv) (d)   (v) (a)

Exercise 7
Notable decline, remained constant, impressive increase, gradual decline

Exercise 8
 (i) False   (ii) False   (iii) True   (iv) True

Let us revise
(b) (i) teeming   (ii) emission   (iii) composition
     (iv) organic   (v) evolution   (vi) galactic

TREE-DIAGRAM REPRESENTATION OF WIPRO ORGANISATIONAL SET-UP
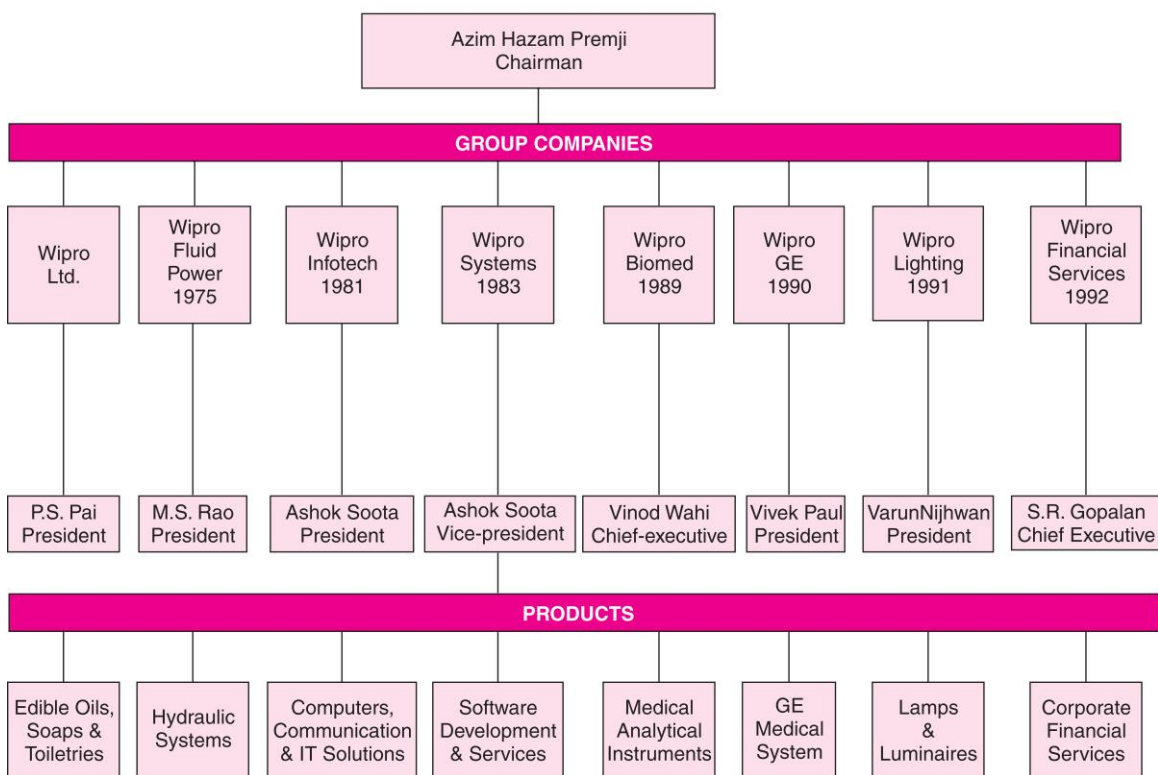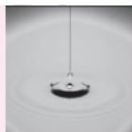
CHAPTER 7

The Processes of Living: Arts, Lifestyle and Entertainment

CHAPTER OUTLINE

In this chapter you will learn about the following:
- Describing a process
- Using cohesive devices
- Understanding past continuous tense
- Using sentences with causes/reasons/effects

Let Us Discuss

- Discuss two films with best special effects you have ever seen. Compare your answer with your partner's

SFX

Ignoring Sound effects, SFX fall into two main categories: manipulation of the image, and manipulation of what is in front of the camera. Manipulation of the image depends in turn on two principal factors, extension in space and extension in time.

The image in film is a two-dimensional (2-D) rectangle, a 'frame', which would normally represent what was in front of the camera during 1/50th of a second. When a series of such images, running vertically down a strip of film, is projected at 24 frames a second (fps) in the cinema, or 25 fps on TV, an illusion of movement is caused of a retinal property known as 'persistence of vision', which in normal life enables us to perceive the world as a continuous flow, not an infinite series of separate moments.

Because different lenses are used for different purposes (for example, a wide-angle lens gets more visual information on-screen than a close-up lens), even in straightforward recording, it could be argued that any photographic image is already a distortion of what one sees in the real world. No camera lens can match the flexibility of the human eye and only a few experiments in stereoscopy attempt two-eyed (binocular) vision, essential to true 3-D perception.

The most familiar, though normally invisible, additional distortion is that of the wide-screen processes, which squash the images sideways to fit them onto 35mm film and stretch them again for projection. Some wide-screen processes use a wider film, 65mm, in shooting—known as 70mm, since the projection version has 5mm for sound-tracks. But the usual squashing and stretching still applies to most projection prints, except for a few large cinemas in major cities which are able to afford the expensive 70mm projectors. The only well-known process that used 35mm film and an unsquashed image was VistaVision. This short-lived system of the 1950s ran the film itself sideways (as in an ordinary still camera) through a specially designed movie camera, giving an image about 37mm wide and 'true' in the same sense as an ordinary non widescreen (Academy ratio) 35mm image is—or was. This unique combination led to the rediscovery of the VistaVision process, or at least the old cameras used to achieve it, in the 1970s and '80s as a valuable tool for the SFX cameraman.

VOCABULARY

Exercise 1 Select the odd word out from the following group of words:
 (i) ignorance, tolerance, patience, proud
 (ii) manipulation, projection, sophistication, ignore
 (iii) familiar, short-lived, valuable, discovery
 (iv) invisible, visible, unsquashed, abnormal

WRITING: MAKING AN ARGUMENT

In the above text you have read how special effects are used in films. However, many people feel that nowadays films depend on too much use of special effects, and less on a good story or performance.

Make an argument for any of the two premise, and write your answer. Compare it with your partner's response.

Using Cohesive Devices

A passage is not merely a collection of sentences. The sentences are linked together to make a continuous passage. Look at the following three sentences.

John has two sons. Hyderabad is a major city of south India. Bangalore has become a crowded city.

Now obviously, these sentences do not make a passage. They are all about different things. There is no connection between them, and we would not expect them to be part of the same piece of writing. In other words, in a piece of writing we expect some kind of unity and continuity. Now look at the following sentences:

John has two sons. They were both born in Hyderabad, which is a major city of south India. Now John lives in Bangalore, which has become a crowded city.

Here the earlier three sentences have been linked together so that they make a continuous passage. What has been added to make the links? Some extra bits of information (like the fact that the sons were born in Hyderabad), some extra words (now) and some referential words (they, which). All these lead to making writing more cohesive and unified.

The following is a list of cohesive words/linking words for your reference:

- **Time:** when, while, since, before, after, until, once
- **Place:** where, wherever
- **Cause:** because, since, as, now that, inasmuch as
- **Condition:** if, unless, on condition that
- **Comparison:** like, likewise, such as, same as, similarly, as
  Contrast/Concession: although, even though, despite, in spite of
- **Adversative:** while, where, whereas
- **Enumerative:** first, second, third…; 1, 2, 3,…; to begin with; in the first place, in the second place…; next, then; finally, to conclude
- **Reinforcing:** also, furthermore, moreover, in addition, above all
- **Equative:** equally, likewise, similarly, in the same way
- **Summative:** in conclusion, to sum up
- **Apposition:** namely, in other words, for example (e.g.), for instance, that is (i.e.), that is to say
- **Inferential:** otherwise, in other words, in that case
- **Replacive:** alternatively, rather, on the other hand
- **Antithetic:** instead, on the contrary, in contrast, by comparison
- **Concessive:** however, nevertheless, still, yet, in any case, at any rate, after all
- **Result:** consequently, hence, therefore, thus, as a result
- **Other:** that, which, who, whoever, whom, what, why, how, where

Looking for Sentence Connectors

Read the following text on Kalariyattu, a martial art form from Kerala. Notice the use of linking words which have been italicised for you:

Reading 2

KALARIPAYATTU

Kalaripayattu is one of the oldest martial arts in the world. The original martial art form evolved in north Kerala. In Malayalam, Kalaripayattu means 'the fighting art of the Kalari'. In ancient Kerala, Kalari was a place of learning subjects *such as* medicine, philosophy, architecture, astrology *and* geometry, *besides*, combat arts and yoga. Translated into English, *kalari* means the battlefield, *and payat* implies training in the art of combat. *While* the technique is based on the science of yoga for its forms *and* exercises, its medical treatments draw from the science of Ayurveda.

Kalaripayattu practitioners are *more than* martial artists. They are *also* reputed to be excellent masseurs and bone doctors. *In fact*, Kalaripayattu is a recognised branch of Ayurveda, or Indian naturopathy. *Undoubtedly*, ancient rajahs relied *not only* on the Kalaripayattu practitioners' martial skills, *but also* on their abilities as healers and setters of bones. An instance of this is how a rope is skillfully used to direct *and* control the exact amount of pressure applied by a Kalaripayattu practitioner to a patient's body.

The origins of Kalaripayattu are obscure *since* it has been nurtured from the oldest martial traditions of South India, with influences that came in with time from north Indian Aryan martial traditions, *which* have links with Dhanur Veda-the science of the art of war in ancient India. *However*, it is widely believed that in 3rd century, Kalaripayattu was taken across the Himalayas by the Buddhist monk, *Bodhi Dharma*, from southern India, giving rise to Chinese Kung Fu. The discipline involves schooling in physical agility, weapons handling, and then hand to hand combat. Seven levels must be achieved to become a Gurukal, or master. *At present*, Kalari is practiced mainly in the state of Kerala, *where* several styles exist. Keralites living abroad are attempting to bring the art to the United States and to Canada, in hopes of seeing it grow the way Korean *Tae-kwon-do* or Brazilian *Capoeira* is growing.

PRACTICE

Read the following piece about capoeira game, a form of Brazilian martial arts, and underline all the linking words.

CAPOEIRA

Capoeira is a combination of dance, ritual and martial arts that developed out of the Portugese trade of African slaves to Brazil in the 16th century. Capoeira, unlike most other martial arts, can be more accurately described as a game than a fighting style. The name of the capoeira game is the Jogo. The jogo is played by two capoeira practitioners (capoeiristas) at a time, inside a ring of people called the Roda, which is made up of other capoeiristas or onlookers. The capoeiristas (people who are engaged in capoeira) practise a series of attack and counter attack movements made up of mostly kicks, often coming within inches of each other.

The ritual game begins with two players squatting in a circle, or Roda, of spectators. The players rest at the feet of a single-stringed instrument, or berimbau, and one player sings a commencement song. The game of Capoeira requires the use of intuition and foresight and does not rely solely on the use of physical strength. During the game the capoeiristas skillfully expose the limitations of their opponents and engage in playful attacks and counterattacks thus better enabling themselves to discover their personal power.

The other player can sing in response or remain silent to allow the first player to sing the announcement that the game has started. The musician then picks up the song as the players move to the center of the circle. The lead player is the Mestre, or master of the capoeira game.

The players and the Mestre carry on a dialogue during the game; the music sets the tempo for the tricks that a player can use. A player may also improvise his movements according to the musical commentary the Mestre gives to his performance. The Mestre in turn may play music that reflects the players' attitudes, reactions and strategies.

The goal of the game, or Jogo, is to catch the opponent off-guard using guile, technique and gymnastics. Players can fake each other out using rapid kicks, cartwheels, handstands, leg sweeps, flips, jabs, dodges, and turns. The base movement, and the one most often used by beginners, is a side-to-side motion in a semi-crouched stance called Ginga.

Unlike most martial arts, strikes are admired most when there is no physical contact. A player gains the most applause when the other player has been skillfully baited into a vulnerable, off-balance position, but has not actually fallen or been hit.

Although there is no point system, and no official winners or losers, players can be disqualified for falling into a seated position or, in some forms of capoeira, using their hands to strike. Modern martial artists have two main choices for capoeira techniques and philosophy. Angolan capoeira is the more traditional form, with slow, dance-like steps while regional capoeira relies much more on high-energy acrobatics.

Capoeira today is truly a global phenomenon with schools teaching its fusion styles in major cities all over the world.

Exercise 2

Confusable words:
Fill in the blanks using one of the words given as choice:

(a) She is researching on the _____ of stress on sleeping.
affect
effect

(b) He was able to sing the song in a single _____
breathe
breath

(c) The duke challenged the nobleman for a _____
dual
duel

(d) She has not been invited _____ for the occasion.
formerly
formally

(e) _____ is a mineral found in good amounts in India.
lead
led

(f) You need a lot of _____ in order to speak better.
practise
practice

(g) The Sun is a _____ body.
stationery
stationary

(h) He has _____ the scholarship. He is the only _____ from his school to do so.

won

one

(i) Thanking you _____ sincerely Ms. XYZ.

You're

Your

(j) He has to _____ his responsibility for this situation.

except

accept

(k) _____ is a emotion strongly needed for successful learning and teaching . Do you agree?

effect

affect

(l) The tie _____ this suit very well.

compliments

complements

(m) Please _____ that you don't leave any of your belongings behind.

insure

ensure

(n) The witness has been _____ all through.

lying

laying

lieing

(o) What are you _____ for?

hear

here

(p) The shirt is too _____ for me.

lose

loose

(q) She rushed _____ me, crying bitterly.

past

passed

(r) The _____ is very pleasant out there.

whether

weather

Useful Websites

Two important sites for learning more on confusable words are:
- www.cit.gu.edu.au/
- http://grammar. ccc.commnet.edu/grammar

You will find more on confusable words in the Appendix.

EXPRESSING CAUSE/REASON

We often observe the desk clerk of a hotel saying, 'But we're having an international medical conference during the period you've mentioned, and would be rather short of service. We'd therefore be unable to provide you with an American plan.'

This sentence can also be spoken as, '*Since* we're having an international medical conference during the period you've mentioned, and would be rather short of service, we'd be unable to provide you with an American plan.'

Here, we use *since* as a conjunction, which is used to express a reason.

In English we have several words that are used to express cause and reason. Some of these are *for, because, as*.

Exercise 3 ↗ Using the same subject, *I am*, make sentences of your own choosing from the grid below:

	Feelings		Reasons
	bored		I'm going on holiday tomorrow.
	tired		We have a good teacher.
I am	worried		I worked very hard today.
	excited	because	I can't find my keys.
	annoyed		I have nothing to do.
	interested		I want to go to the party but I can't.

Read the following and understand how to describe a process:

Zoptic Process: How Superman Began to Fly

Reading 3

In a Zoptic process, front projection is combined with a double zoom effect for the so-called Zoptic process (patented by Yugoslavian-born British effects man Zoran Perisic), which enabled Superman to fly convincingly in close shots. Wirework and other effects involving stuntmen were also used.

The Zoptic process is quite simple in principle, but is also very flexible and capable of more elaborate variations, as occurred in *Superman*. Basically, it depends on fitting both camera and projector with zoom lenses, exactly synchronised in their movements, in addition to the normal synchronisation of the shutters that govern exposure and projection of the image respectively of camera and shutter in simple front or rear projection.

When the projector has a fixed lens, the size of the image on the reflective screen is constant. With a zoom, however, it is larger when the angle is wide and the lens is at a short setting (eg 25mm) and becomes smaller as the focal length increases—the beam of light, originally wide, is 'squashed' within the longer tube and becomes narrower, while distances between camera and mirror and between mirror and screen remain the same (the screen would have to move backwards at a measured rate for the image to stay the same size). But, as the focal length of the projector increases, making the screen

image smaller, the focal length of the camera lens is increasing at precisely the same rate (zoom lenses commonly run from about 25mm to over 200mm in focal length). So the camera's view is steadily narrowing and the smaller screen image still fills the whole frame size of the camera film stock. But any (unmoving) object placed between the half-silvered mirror and the screen will now occupy a larger area of the image and therefore appear either to have grown larger, as if swelling, or to have come closer to the camera, even though it has not actually moved at all.

If the projected image is a still one, the illusion of movement may be counteracted by the lack of parallax, as mentioned before, but only if the background appears fairly near and with strongly marked perspective. If it appears relatively flat and equidistant, or quite far away, the lack of parallax may not be a problem at all. Equally, the projected image may itself incorporate movement, especially if shot from a fast-moving source (a helicopter, aero plane or whatever), in which case even the nearer parts of the background will be fairly distant.

As an additional sophistication in *Superman,* both camera and projector were slung from rigs that allowed them to be moved too. Superman (Christopher Reeve) himself was sometimes hung by wires (the disadvantage of which is that they might have to be matted out frame by frame by hand) or supported on a hydraulic arm that came out of the screen at 90° and which, like his shadow, was hidden by his body.

UNDERSTANDING THE PROCESS

In the above passage, you have seen how a complex process in special effects is described. Now using the information given, write the major stages of Zoptic process

Stage I

Stage II

Stage III

Stage IV

Stage V

Words Associated with Technical Processes

Technical English uses a unique vocabulary of its own. Look at the following verbs commonly found in technical writing. Can you replace them with less technical phrasal verbs? Check your answers with a dictionary.

Ignite:

Insert:

Compress:

Depress:

Decipher:

Consume:

Monitor:

Precipitate:

Scrutinise:

Exercise 4

Use appropriate linking words in the blanks in the following paragraph. Check your answers with your partner:

The HP Laserjet 1015 is the latest entrant in the fast growing and increasingly competitive entry-level printer segment today. It is also easily one of the most compact and lightweight laser printers available today, weighing only 5.9 kilos, which is comparable to most inkjet printers today.

This low weight comes at a high cost, considering the extensive usage of plastics in the body design. This raises questions about the printer's durability as a piece of modern office equipment. A flimsy little plastic flap on the top of the printer, masquerades as the output tray for holding the final printed output. HP claims that the tray can hold up to 100 A4 sheets, we found that the sheets started flying off the printer, after just 25 pages. The input tray too is rather small and can hold only about 150 sheets at a time. The manual feed slot which is located above the main input tray can hold 10 sheets instead of one, due to the protective tray cover for the input tray.

The 1015 has a very large 16 MB buffer. It cannot be upgraded by adding any extra memory. The printer body itself is two-toned with a dark blue tone and silver-grey finish on the sides. The user interface consists of a simple 2 button combination along with 3 LEDs to indicate the printer's operational status. It indicates errors such as memory leaks. The 1015 connects to the PC through both USB and IEEE 1284 port interfaces. Good for older computers. Both the cables are missing from the bundled package, with only the 15A power cord included along with the driver CD and the quick start guide. The inclusion of a paper manual would have been a welcome addition to the accessories.

(Source: *Sneak Previews* by Anil Gangolli. ***Network Computing***.February 2004, p.60).

USING SHALL/SHOULD

We use these auxiliary verbs for
- Making suggestions, offers, advice expressed by shall I? shall we?

Shall we go? Shall we call them? Shall we meet at the theatre?
- Shall is also used to express commands

All members shall regularly sign in the register. You shall observe the dress code of this institute.
When sentences of this type are stated in indirect speech, shall is generally replaced by must, have to, had to.
- Should is used to express duty

You should correct your mistakes. You should be careful.

Exercise 5

Making imperatives using 'shall' and 'should'

Given below are described two processes to create special effects in the films, *Matrix* and *E.T.* Imagine you were on the team of professionals doing the special effect of the two films. Rewrite the sentences as though you are giving instructions, and use imperatives wherever possible. For example, for E.T., under step 2, you can say:

Steven Spielberg told Carlo Rambaldi, "You *should* use the photographs of eyes of Albert Einstein, the poet Carl Sandburg and Ernest Hemingway…"

Similarly, "A large number of still cameras should capture the scene…."

Likewise, begin every sentence with *shall* or *should*.

Film 1	*Matrix*	*Film 2*	*E.T.*
Process	**Scene:** Rotation occurs, but the actor is also moving in **slow motion** during the rotation	**Process**	Making of E.T.
	Stages		**Stages**
Step 1	A large number of still cameras capture the scene, but they fire sequentially around the actor rather than all at once.	Step 1	Carlo Rambaldi created E.T.'s face on a horisontal plane to create an instant impression of innocence.
Step 2	The cameras shoot the actor on a green-screen background	Step 2	Steven Spielberg wanted Rambaldi to use the photographs of eyes of Albert Einstein, the poet Carl Sand-burg and Ernest Hemingway for creating a combined effect of intelli gence, sensitivity and adventurousness.
Step 3	The actor wears a wire suspended from the ceiling so that he can fall only part-way or appear to float in mid-air.	Step 3	The principal version had 85 electronically controlled points of movement.
Step 4	Once the scene is shot, software similar to morphing software interpolates between the images to allow the slow-motion feel. The filmmaker can therefore slow down or speed up the action at will.	Step 4	E.T.'s mechanical inner systems were put in a body consisting of an aluminium-and-steel skeleton covered with a multi-layered inside of fiberglass, polyurethane and foam rubber.
Step 5	Computer-generated backgrounds are then superimposed onto the film.	Step 5	E.T.'s skin was made of Rambaldi's special formula soft polyurethane.

Exercise 6 Research about a film of your choice with excellent special effects. Understand the processes that go into making a scene like the one you read above.

Exercise 7 Chooses thes best response:

(i) I would like to make an appointment.

(ii) I'm afraid it can't take place on Monday.

(a) No, it didn't work out.
(b) Saturday would be perfectly fine.
(c) What a mess her office was in!
(d) She's expected this afternoon.
(e) I'll put you through our engineer.

(iii) Could we possibly meet on Thursday or Saturday?

(iv) Has the new desk clerk joined?

(f) When would you like to have our next appointment?

(h) You've been canceling too many appointments.

(i) The meeting turned out to be a fiasco.

(j) Will Friday be ok?

Exercise 8   Using the following set of words, make as many sentences as possible creatively:

tries	what	remember
they	has	not
she	Maya	is
in	refrigerator	food
the	to	supermarket
in	to	been
over	need	the
have	a	yet
car	not	week

Let Us Discuss

For your notebook
- Do you like reading comics? Give reasons for your response.

Anant Pai: Bringing Mythology to our Homes

Despite the blitz of television, the ambush of the Internet and the blast of the play stations, these doughty and spirited comics have survived the sundry pressures of time. They contuinue to stand tall, even changing its packaging to be in tune with the times.

What started as a 'movement' using a popular medium like comics to acquaint Indian children with their rich cultural heritage is still as relevant today as it was when the idea was first conceived of in 1967.

"I believe that even today these stories are the best way to communicate history to children," says founder editor Anant Pai of India Book House (IBH). It all started when Anant Pai saw a quiz contest on television, where none of the youngsters could answer a simple question like, "What is the name of Lord Ram's mother?"

Pai felt disturbed, and after returning to Mumbai, he encouraged the youngsters of his family to bring out a manuscript magazine. It was called 'Family News', and had a poem on Daffodils, in imitation of Wordsworth's Daffodils. There was a story about a boy who dreamt of going to London. "There was certainly something wrong when Indian children dreamt of London," says Pai. It was then that he realised that younger generation was getting alienated from its own culture. He decided to do something about it.

The immortal picture stories called **Amar Chitra Katha** began with *Krishna*. Pai used the immense talents of Ram Waeerkar, a cartoonist and artist. Krishna was followed by *Shakuntala, Pandavas*, *Hanuman*, etc. By 1970, the company was selling **Amar Chitra Katha** in Hindi, English, Marathi, Bengali, Kannada, etc. Using colour and illustrations, these comics bring to life mythological tales, legends, biographies, regional classics, the freedom struggle and even the lives of Sikh Gurus in an easy-to-read manner.

However, the original *Amar Chitra Kathas* were not in full colour because of budgetary constraints. A comic that takes a single sitting to be read may take a year or two of research, referencing, authentication, scripting, sketching and illustration. Each detail like costume, architecture and regional flavour are carefully collated and checked.

The readership refuses to decline but instead of children, support is coming in from an interesting quarter — that of parents and non-resident Indians. As a book store owner says, "An entire generation of parents who grew up reading these comics are now buying them for their children. What is more, it is the NRI parents who want to inculcate a sense of Indian culture in their children and buy these regularly."

"We are adding new titles to our collection like the lives of Kalpana Chawla and JRD Tata recently. We also have three to four titles in Punjabi that deal with the lives of some of the Gurus," says Pai.

However, of the 440 titles that have been published it is the *Mahabharat,* the *Ramayana* and stories from the freedom movement of India that move the fastest

That is because they are evergreen since they are still the only reading options that offer the history and culture of this country in an interesting manner.

Now spanning several Indian and foreign languages, what the ubiquitous *Amar Chitra Katha* does is to fill a void of a need to keep a 5000 year old culture alive.

VOCABULARY

British and American Words

In the above text, you have come across the term 'book store', whereby store is an American equivalent of shop, which is more common in Indian and British English.

Exercise 9 Find the American equivalents for the following:

British English	American English
Chips	
Cheque	
Rubber	
Return trip	
Postgraduate student	
Post	
Postal code	
Lift	
Full stop	
Current account	
Underground	

GIVING CAUSES/ REASONS/EFFECTS

Anant Pai decided to start a series of comics based on Indian mythology because he wanted the readers in India to get familiar with our myths and legends, instead of looking at the western countries all the time.

Exercise 10 Now complete the following sentences using because, because of, for, as, since:
  (i) Anant Pai felt disturbed _____
  (ii) NRIs love *Amar Chitra Katha* _____
  (iii) _____, *Amar Chitra Katha* was not originally in full colour.
  (iv) _____, lot of time is needed to produce a single volume.
  (v) Some stories from *Amar Chitra Katha* comics are considered evergreen _____

WRITING

Write a letter to a friend settled abroad, giving reasons for knowing more about Indian culture and heritage.

SPEAKING

Is there any character/ personality from among modern day Indians, who you would like to read about in comics? Name the personality, and justify your choice.

Revising Tenses

In one of the earlier chapters, we have seen how present continuous tense is used in communication. Given below are some adverbs commonly used with *present continuous tense*. Try to form as many sentences as possible using *present continuous tens* with them. Compare your answers with your partner.

At the moment
Now/right now
Currently
Today

PAST CONTINUOUS TENSE

Look at this sentence: 'Last year, he *was studying* for his final exams at this moment.'

'An entire generation *grew up reading* these comics.' Here the writer is describing events which happened in the past with a sense of continuity.

Exercise 11 Read the following passage, and fill in the blanks using the past continuous forms of the words given in the bracket:

Born in Italy in 1925, Carlo Rambaldi began _____ (i) (model) birds, animals and people in clay while his peers _____ (ii) (make) mud pies. At five he was _____ (iii) (entertain) his younger brother and other children with a variety of puppets he made. He also began _____ (iv) (paint). After his graduation, Carlo decided to channel his experience into cinema. Soon he started working on an epic film, Barabba. After its success, Carlo established his own workshop and was soon _____ (v) (hire) model-makers and sculptors.

USING VERBS—MAKE/DO

Do and *make* are both action verbs.
Make can be used in the following ways:
They *made* a huge profit.
A. R. Rahman *makes* great music.
Mani Ratnam *has made* a classic called *Nayakan*.
Yusuf *makes* the best cakes in town.
Would you like *to make* a call to your parents?

Here are some expressions with *make*.

Make reservations, make arrangement, make an effort, make merry, make an excuse, make money, make mistakes, make a mess, make a fuss, make a noise, make progress, make a speech, make trouble, make up one's mind.

Exercise 12 Complete the following sentences using the above expressions with the verb 'make':
  1. Mary's grades are improving and she _____
  2. You are confused about selecting your courses. You must _____
  3. His business is doing very well and he _____
  4. Akshara never admits to her mistakes and is always _____ to cover them up.
  5. If you seriously _____, you are sure to succeed.
  6. They tip-toed in ,without _____

Do can be used in the following ways:
What does he do? (=What's his job?)
I don't want any lunch. A cup of coffee will do. (=Will be sufficient)
She cannot do without her Walkman. (=Without having)
Your brother is here. It's something to do with your car. (=connected with)
I've done my room. (=cleaned)
Don't do drugs. (=try)

Here are some expressions with the word **do**.
Do your best, do business (with someone), do a course, do someone a favor, do good, do harm, do-it-yourself, do well.

Exercise 13 Complete the following sentences with the above expressions:
  1. She has _____ her friends many _____, yet they did not come forward to help her when she needed them.
  2. Try this _____ kit. It makes painting your house very easy.
  3. He is reliable and honest. We would love to _____ with him.
  4. She needs to _____ in anger management.
  5. I am surprised to learn that he _____ in the exam.

Exercise 14 Fill in the blanks with the correct form of make or do.
  1. Raksha will pass her exams, but she would not _____ it to the top.
  2. I always try to _____ my best , whenever I am given a responsibility.
  3. Who shall I _____ the check out to?
  4. The police has _____ no progress in investigating the case.
  5. The government has _____ extra provisions against bad crop this year.
  6. His business is _____ well, and he has _____ lots of money.
  7. You need to _____ away with all these regulations if you want better results.
  8. I can _____ with a computer of my own.
  9. Could you _____ me a favor, please?
  10. The new project will _____ more demands on my time.

SPEAKING

Discussion 1

In a group of three-four, discuss the most exciting cricket match you have ever seen. You may cover the following areas:

- year of the match
- place/venue of the match
- key players in the match
- highlights of the match
- winning team

Discussion 2

In a group of three-four, discuss a film with the best special effects ever. Each student can talk about his/her preference, and compare answers with the rest.

Let us Revise
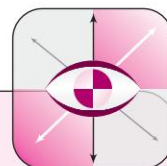
1. *Arrange the sentences in the following paragraph in correct order, and rewrite it.*
   (i) This time as Goddess Kali, singing and dancing on the back of a tiger.
   (ii) The film, scripted by Suketu Mehta, traces the friendship between three Indian friends and an American painter who is obsessed by the Indian Goddess.
   (iii) He reportedly selected Turner for the role simply because he could think of no one else. Tina Turner just left India.
   (iv) According to the director, it is a funny, intelligent film posing the theory that women are supposed to rule the world.
   (v) Turner has described her passage to India as an "intense spiritual experience".
   (vi) But she'll be back.
   (vii) "Her energy, her voice, her dancing…she's mesmerising," he says.

2. *Develop the following into a well-connected passage:*
   Tulsi _____ a boy next door _____ not really _____ can answer questions on addition, subtraction, multiplication, division, percentage, square roots _____ can tell day, date which was centuries ago _____ bored with such questions _____ finds them trivial _____ could do this at the age of five _____ claims to find accurate value of 'pi' _____ parents teachers _____ Tulsi claims to predict earthquakes _____ scholars impressed _____ Tulsi confident _____ shall win the Nobel.

Answer Key
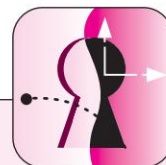
Exercise 1
(i)   proud: adjective; all other words are nouns
(ii) ignore-verb; all other words are nouns
(iii) discovery-noun; all other words are adjectives
(iv) visible; all other words are antonyms using prefixes

Exercise 2

(a) effect	(b) breath	(c) duel	(d) formally	(e) lead	(f) practice
(g) stationary	(h) won, one	(i) yours	(j) accept	(k) affect	(l) complements
(m) ensure	(n) lying	(o) here	(p) loose	(q) past	(r) weather

Exercise 7
(i) (h)   (ii) (i)   (iii) (b)   (iv) (d)

Exercise 9
French fries, check, eraser, round trip, graduate student, mail, zip code, elevator, period, checking account, subway.

Exercise 11
(i) modelling;   (ii) were making;   (iii) was entertaining;
(iv) painting;   (v) hiring
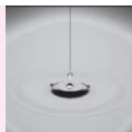
CHAPTER 8
Celebrating Human Spirit, Values and Determination… and Learning to Write about Them

CHAPTER OUTLINE

In this chapter you will learn about
 (i) Matching titles with paragraphs
 (ii) Reordering jumbled paragraphs
(iii) Note-making (guided and unguided)
(iv) More on simple future
 (v) Vocabulary related to human nature and attitude
(vi) Cloze-reading
(vii) Guessing meaning of difficult words and expressions through context

Pre Reading Activity

Let Us Discuss

- Do you think we need to learn anything from the west?
- What are the Western values and qualities which we find lacking in our society?

Read the following and answer the questions that follow**:**

What we Must Learn from the West

1. The role of Western values in contemporary Indian society is a subject on which I have pondered for years. I come from a company that is built on strong values. Further, various stakeholders of our company, including employees, investors, customers and vendor-partners come from across the globe. In this context, over the years, there are several aspects of the Western value system that I have come to appreciate. Moreover, an organisation is representative of society, and some of the lessons that I have learnt from the West regarding values are, I think, applicable to us as a nation. Here are some of them:

2. Unfortunately, our attitude towards the community is very different from our attitude towards the family. Although we keep our homes spotless, when we go out we do not think twice before littering. On the other hand, parks in the West are generally free of litter and streets are clean. We are also apathetic about community matters. We see serious problems around us but behave as if they are someone else's responsibility. For instance, all of us are aware of the problem of drought in India. In the West, individuals understand that they have to be responsible to their community. They care for their society and they sacrifice for it. Further, they solve societal problems proactively. This is where we need to learn from the West. Successful societies are those that harmoniously combine loyalty to family and loyalty to community.

3. In my extensive travels, I have not come across another society where people are as contemptu-ous of better societies as we are, with as little progress as we have achieved. This attitude, inci-dentally, is nothing new—Al Barouni, the noted Arabic logician and traveler of the 10th century, who spent about 30 years in India, referred to it. According to him, most Indian pundits consid-ered it below their dignity even to debate with him. In fact, on the few occasions when a pundit was willing to listen to Barouni, and found his arguments to be sound, the pundit invariably asked the Arab philosopher which Indian had taught him!

4. There, you are held responsible for what you do irrespective of your position. However, in India, the more 'important' you are, the less answerable you become. For instance, a senior politician once declared that he 'forgot' to file his tax returns for 10 consecutive years—and got away with it. Although there are over 100 loss-making public sector units belonging to the Central Govern-ment, I have not seen action taken for bad performance against top managers in these organisa-tions.

5. Whereas this is an integral part of Western value system, in India, we revere only supposedly intellectual work. For instance, I have seen many engineers, fresh from college, who only want to do cutting-edge work and not work that is of relevance to business and the country. For anything to be run successfully, everyone—from the CEO to the person who serves tea—must discharge his or her duties in a responsible manner. We, therefore, need a mindset that reveres everyone who puts in honest work, no matter what it is.

6. In the West, people do not let personal relations interfere with their professional dealings. They do not hesitate to chastise a colleague for incompetence, even if he is a friend. In India, we tend to view even work interactions from a personal perspective. We are also the most thin-skinned society in the world—we see insults where none is meant. We extend this lack of professionalism

to our sense of punctuality. We do not respect the other person's time. Indian Standard Time always runs late, and deadlines are typically not met.

7. The Western value system teaches respect for contractual obligations. In India, we consider our marriage vows as sacred. However, we do not extend this to the public domain. We are all aware of our rights as citizens. However, we often fail to acknowledge the duty that accompanies every right. We should keep in mind what former US president Dwight Eisenhower said: "A people that values its privileges above its principles soon loses both." So let us work towards a society where "we would do unto others what we would have them do unto us" and make our country great.

The above text is an abridged form of speech delivered by Mr. Narayan Murthy, when he received the Lal Bahadur Shastri National Award for Excellence in Public Administration and Management Sciences for the year 2001 from the Lal Bahadur Shastri Institute of Management, New Delhi.

VOCABULARY

Exercise 1   *Words describing human character and attitudes*
Fill in the missing alphabets in the following to make a complete word. The meanings are given on the right hand:

Word	Meaning
o-n-x-o-s	having terrible manners, badly behaved
i-tr-p-d	brave
n-gl-g-nt	careless
g-nu-n-	real, not artificial
-xtr-v-g-nt	one who likes to live a life of luxury, one who spends lavishly
a-ro-t	skillful
i-c-h-r-nt	unclear
pr-d-gi-us	hugely talented especially from childhood

Exercise 2   Match the appropriate titles to the numbered paragraphs in the text above:
(a) Need to reassess ourselves
(b) Professionalism
(c) Honouring contracts
(d) Dignity of labour
(e) Accountability
(f) Acknowledging the accomplishment of others
(g) Respect for the public good

I. SEQUENCING OF JUMBLED SENTENCES USING LINGUISTIC CLUES

Let us read the following and try to rearrange the following sentences so that the text results in a general-specific pattern:

 (i) The defeat of France in the Napoleonic Wars is claimed to have been followed by a period of rampant mysticism including a wide resurgence of interest in astrology.

 (ii) George Orwell's *Nineteen Eighty-Four*, an equally damning indictment of the totalitarian possibilities contained in advanced technology, was written in the years immediately following the Second World War.

(iii) Reactions against technology are not new.

(iv) Throughout history, therefore, man has been warned that he was creating forces he would be unable to control, that machines would eventually take over the planet and demand the total obedience of the human race (if indeed, it was still allowed to exist), that to place one's faith in science and technology was to make a pact, like Faust, with the devil.

 (v) Opposition to reason and to rationality, frequently embracing attacks on science and technology, has in particular been experienced by societies that have suffered a major upheaval or catastrophe.

(vi) Oswald Spengler captured the imagination of a defeated Germany in 1920 with the publication of his *Decline of the West* and his prediction that 'Faustian man will be dragged to death by his own machine.'

VOCABULARY

Napoleonic wars= wars started by or involving the French Emperor, Napoleon Bonaparte, and which ended in his defeat.
Rampant=widespread, commonly prevalent
Mysticism=a divine meaning beyond human understanding
Resurgence=re-emergence
Damning= destructive, damaging
Indictment= strong criticism
Faust= a legendary character, who sells his soul to the devil in exchange for infinite knowledge
Faustian=like Faust
Catastrophe= ending in tragic results

Understanding how to Sequence Jumbled Paragraphs

In this section, we will see how paragraphs can be rearranged sequentially using certain clues of language. Let us start with isolating the most general of all statements in the above text.
Part iii. Reactions against technology are not new.
It is clear that **part iii** is the most general and can form the beginning of a paragraph. Let us take it as **part i**, as:

Part (i) Reactions against technology are not new.
While we are on the subject of reaction against technology, it would be apt if **part iv** which further elaborates upon the premise laid down by **part i** follows.

Part (ii) Opposition to reason and to rationality, frequently embracing attacks on science and technology, has in particular been experienced by societies that have suffered a major upheaval or catastrophe.

From here we move on to another specific idea that rise of technology is harmful for any society because this would lead to machines taking control over the planet. This gives us the third part.

Part (iii) The defeat of France in the Napoleonic Wars is claimed to have been followed by a period of rampant mysticism including a wide resurgence of interest in astrology.

The above part follows logically also because the date of the Napoleonic Wars which clearly precedes the other two events, viz., the publications of *Decline of the West* in 1920s and George Orwell's *Nineteen Eighty-Four*. So following a sequential order we get:

Part (iv) Oswald Spengler captured the imagination of a defeated Germany in 1920 with the publication of his Decline of the West and his prediction that 'Faustian man will be dragged to death by his own machine.'

and this is followed by

Part (v) George Orwell's Nineteen Eighty-Four, an equally damning indictment of the totalitarian possibilities contained in advanced technology, was written in the years immediately following the Second World War.

You are also advised to carefully look for clue words, such as ***an equally damning indictment*** in the part above. This clearly shows us that the earlier part is talking about something damning and indicting, and this part is merely supporting what has been said earlier.

This brings us to the most specific idea of the paragraph:

Part (vi) Throughout history, therefore, man has been warned that he was creating forces he would be unable to control, that machines would eventually take over the planet and demand the total obedience of the human race (if indeed, it was still allowed to exist), that to place one's faith in science and technology was to make a pact, like Faust, with the devil.

A significant clue word here is 'therefore' which encapsulates the essence of the paragraph that man has always been warned against the potential dangers of science.

II. NOTE-MAKING

Generally, when a student-writer responds to an essay question, so much reading is required that it is impossible to store all the information mentally in order to complete the assignment. Besides having the need to record information, the reader is required to turn the information into his own, avoiding the use of the exact wording used in the text—except where that information is quoted.

Notes should be brief enough to enable the reader-writer to recycle information using his own words, while not so brief that meaning becomes lost. Everyone develops their own style of note-making, but here are some suggestions:

  (i) Notes should be well spread out. It is difficult to refer to bits of information which are indistinguishable one from the other on the page.
 (ii) Detailed information should be indented, each detail given a separate line on the page.

(iii) Abbreviations, for the sake of speed, should be also employed. For example,

N.B.	Note well	viz.	namely
G.M.	General Manager	i.e.	that is, in other words
E.U.	European Union	E.g.	For example

(iv) Single words can be shortened:

info.	information	rec.	recommend
incl.	including	Nov	November

Here are a few commonly used symbols which you may need to employ:

$=$	is/are the same as	$\because$	because
$\therefore$	therefore	$>$	greater/more than
$\&/+$	and, plus	$<$	less than
$\rightarrow$	lead to	$\rightarrow$	caused by, as a result of
$\uparrow$	go up, rise	$\downarrow$	fall, descend
$\neq$	is not the same as	cf	compared with

Here is an example of note-making.

Homi Jehangir Bhabha is mostly known as the chief architect of India's nuclear programme. He was born on 30 October 1909 in a wealthy Parsi family of Bombay. Bhabha's family had a long tradition of learning and service in the field of education. His grandfather, also named Homi Jehangir Bhabha, was the Inspector General of Education in the State of Mysore. Bhabha's father Jehangir Hormusji Bhabha was educated at Oxford and later qualified as a lawyer. Hormusji's sister married Sir Dorab J. Tata, the eldest son of Jamshetji Nusserwanji Tata (1839-1904).

Bhabha attended the Cathedral and John Connon Schools in Bombay. After passing Senior Cambridge Examination at the age of 15, Bhabha entered the Elphinstone College in Bombay and later the Royal Institute of Science, also in Bombay. In 1927, Bhabha joined the Gonville and Caius College in Cambridge. He took the Mechanical Sciences Tripos in 1930. At Cambridge Bhabha's interests gradually shifted to theoretical physics. His work centered around cosmic rays there.

A. EARLY LIFE & EDUCATION

1. Born on 30 October 1909 in a wealthy & educated Parsi family
2. Education in India
    (a) Cathedral and John Connon Schools in Bombay
    (b) Elphinstone College in Bombay
    (c) Royal Institute of Science
3. Education in England
    (a) Joined Cambridge in 1927
    (b) Interested in theoretical physics
    (c) Work centred on cosmic rays

In 1939 when the Second World War broke out, Bhabha was in India. He came for a short holiday. However, the war changed his plan. Most of the scientists in England had to take part in war activities and there was no scope for doing basic research. So Bhabha had to abandon his plan to return to

England to resume his research work at Cambridge. At the Indian Institute of Science Bhabha guided research on cosmic rays. He organised a group of young researchers in experimental and theoretical aspects of cosmic ray research. After spending a few years in India, Bhabha was no longer interested in going back to England. Perhaps this was because of his growing sense of responsibility towards his motherland. Gradually he became convinced that it was his duty to build up research groups in the frontier of scientific knowledge. On April 20, 1944, Bhabha in a letter to Subrahmanyan Chandrasekhar (1910-95) wrote: "...I have recently come to the view that provided proper appreciation and financial support are forthcoming, it was one's duty to stay in one's country and build up schools comparable with those that other countries are fortunate in possessing."

B. OUTBREAK OF WW II

1. Abandoned plans of returning to England
    (a) no scope of research
    (b) scientists had to take part in war activities
2. Joined IISc, Blore
    (a) Guided research on cosmic rays
    (b) Growingly felt responsible towards motherland

In the early 1940s when Bhabha was working at the Indian Institute of Science, there was no institute in the country which had the necessary facilities for original work in nuclear physics, cosmic rays, high energy physics, and other frontiers of knowledge in physics. This prompted him to send a proposal in March 1944 to the Sir Dorab J. Tata Trust for establishing 'a vigorous school of research in fundamental physics'. The trustees of Sir Dorab J. Tata Trust decided to accept Bhabha's proposal and financial responsibility for starting the Institute in April 1944. Mumbai was chosen as the location for the proposed Institute. The institute, named Tata Institute of Fundamental Research, was inaugurated in 1945. When Bhabha realised that technology development for the atomic energy programme could no longer be carried out within TIFR he decided to build a new laboratory entirely devoted to this purpose. He managed to acquire 1200 acres of land at Trombay, near Bombay for this purpose. Thus the Atomic Energy Establishment started functioning in 1954. The same year the Department of Atomic Energy (DAE) was also established.

C. NEED FOR INSTITUTE OF NUCLEAR SCIENCE RESEARCH

1. Sent a proposal to Tata Trust
2. Tata Institute of Fundamental Research founded in 1945 in Mumbai
    (a) TIFR inadequate for atomic energy programme
    (b) Felt a need for a new lab
3. Acquired land at Trombay
    (a) Atomic Energy Establishment (AEE) in 1954
    (b) Department of Atomic Energy (DAE) –do-

In 1963 he was elected Foreign Associate of the U.S. National Academy of Sciences, and Honorary Life Member of the New York Academy of Sciences. In 1964 he was made Foreign Corresponding Academician of the Royal Academy of Sciences, Madrid. From 1960 until 1963 he was President of the International Union of Pure and Applied Physics. Bhabha was President of the National Institute of

Sciences of India in 1963. He was awarded the title of Padma Bhushan by the Government of India in 1954. Bhabha was killed in an air-crash near the famous Mont Blanc peak of the Alps on January 24, 1966, while he was on his way to Vienna to attend a meeting of the Scientific Advisory Committee of the International Atomic Energy Agency.

D. LATER YEARS

1. Several awards & distinctions
    (a) 1954
        (i) Padma Bhushan
    (b) 1963-64
        (i) Elected Foreign Associate of the U.S. National Academy of Sciences
        (ii) Honorary Life Member of the New York Academy of Sciences
        (iii) Foreign Corresponding Academician of the Royal Academy of Sciences, Madrid
        (iv) 1960-63, President of the International Union of Pure and Applied Physics
        (v) President of the National Institute of Sciences of India
2. 1966-Killed in air-crash near Mont Blanc peak

Exercise 3   Give the above text a suitable title

Now read the following and make appropriate notes:

Louis Agassiz: An Extraordinary Life

Reading 2

By the time he was 26, Louis Agassiz was already an internationally famous zoologist. German explorers had sent him fishes collected in the rivers of Brazil – most of them species new to science. Agassiz swiftly classified and named them, publishing the results in superbly illustrated installment. Financing this work brought Louis often to the edge of starvation. This enterprise was soon followed by works on the freshwater fishes of Central Europe, fossil fishes, on corals and seashells. Perhaps no other naturalist has ever poured out such a wealth of effort on so many subjects as did Agassiz in these first creative years.

The serene order in nature which Agassiz expounded was in bitter contrast to the state of his home. His wife Cecile brought up beautifully their three children and painstakingly illustrated some of her husband's works on fishes. But, frail and sensitive, she quailed under the burdens carelessly heaped upon her. The house was constantly filled with untidy anatomists, illustrators, lithographers, who would discuss scientific problems all night with Agassiz, voraciously require feeding at any hour and sometimes stay on in the household for months.

Moreover, every economy that his wife managed to effect meant only that Louis spent more on his costly publications. Small wonder that "Cily" fled sometimes to her old home in Germany. At these times Louis's mother would move in and soon put everything to rights. Robust and cheerful, she took Louis and his friends in her stride.

Louis was a scientist who turned always to nature herself for the facts, and now the problems of those glittering masses of ice, hanging for ever in Alpine troughs, possessed him. Until this time, most people who troubled to think about it supposed that floods explained the forms of Swiss Valleys, the courses of streams, or why a granite boulder, deeply scored, may be found far out upon a limestone plain. They supposed, too, that the glaciers merely hung like icicles from the eaves of the mountains. But the peasants knew that if a man fell to his death in a crevasse of that ice, his body would be found, perfectly preserved, emerging at the melting end of the glacier—at a predictable date.

Piece by piece, Louis assembled his picture of a great drama of earth. He saw that the U-shaped valleys in the Alps must have been gouged out by ice, since running water cuts valleys in "V." The famous lakes of his native land, he deduced, must have been formed by the damming of streams by moraines, those dumps of earth transported by travelling ice and left there as it melts. And the deep scratches on mighty granite boulders, he perceived, must have been made by the rubble in a vanished glacier that had carried the great rocks all the way from the mountains. These Swiss glaciers must have been melting back a little further each year, for the fields at their feet had been increasing in acreage from generation to generation, so the peasants said.

Encouraged by such evidence Agassiz set out to prove that ice fields move, and to measure the rate and manner of their moving. With the help of fellow enthusiasts, he built a crude hut on a glacier and, using this laboratory-shelter for his first base, he conducted experiments for several years. The straight row of stakes he had driven across the ice gradually got out of line and those in the middle moved fastest, tending to tip. This showed Louis that movement is greatest in the middle and at the surface of the glacier.

Agassiz studied the huge travelling monster of ice inside out, having himself lowered perilously deep into its blue-green wells. He journeyed to Scotland and there found that the barren Highlands bore the welts and gashes of a past glacial flying. As he pondered his researches, his thoughts expanded to entertain the grand theory of continental glaciation—the idea that great masses of polar ice had once came down over northern lands and waters, altering the face of the earth.

The announcement of his theory was met with a cold skepticism. Even some of his best friends told him to stick to fishes. But Agassiz held firm, published books and articles on glaciation, and travelled widely to publicise his beliefs. And soon he gained ground. British geologist were the first to come over to his side. Charles Darwin too became convinced.

Agassiz embarked for America in 1846. This was the time when the land was still unexplored and people were eager to learn. His lecture tour was a remarkable success. He won his audiences from the first by his noble stature and boyish enthusiasm; he spoke with ease and brilliance, using no notes, his perfect sentences touched with the piquancy of a French accent. Newspapers headlined his every appearance and some printed his talks in full.

Agassiz searched the face of the land for signs that here too the great glaciers had once been. He found these in plenty as he travelled the Atlantic seaboard. North of Boston the rocky shore is deeply scoured by the grinding passage of ice-borne boulders. Cape Cod is in part an old glacial moraine, and so is Long Island. The White Mountains of New Hampshire and the Adirondacks of New York appear to have been overridden by ice fields from the North. Investigation of the beautiful little Finger Lakes showed Agassiz that they are of glacial origin, and his field trip to Lake Superior convinced him that the Great Lakes were gouged deep by monstrous travelling ice. Thus the very landscape was friendly to Agassiz and his ideas.

Make notes based on the above text. Use symbols and abbreviations wherever possible:

Situation	Reception to ideas	Implications/Conclusions
Initial creative years of Louis Agassiz	(i)	(i)
(i)	(ii)	(ii)
(ii)		
Findings on great drama of the earth	(i)	(i)
(i)	(ii)	(ii)
(ii)		
Grand theory	(i)	
(i)	(ii)	(i)
(ii)		(ii)
Agassiz in America	(i)	(i)
(i)	(ii)	(ii)
(ii)		

Let Us Discuss

- What qualities do you think an entrepreneur should have? Do you think ambition is important? Or is it luck? What about educational background? Discuss with your partner.
- Do you know what a 'tilting train' is? How does it work?

  You are going to read about the British entrepreneur Richard Branson. What do you know about him? Make notes.

Richard Branson: Portrait of an Adventurer

Born in 1950 and educated at Stowe School, Richard Branson went into business at 16, publishing *'Student'* magazine. Having originally founded Virgin as a mail order record company, he later opened his first store in London. The Virgin Records music label was formed in 1972.

Mike Oldfield's *Tubular Bells,* recorded in Virgin's first recording studio and released in 1973, caught the spirit of the era, and became a phenomenal best-seller. Soon many other music stars were signed up making Virgin Records a major player in the international music business. Since then Virgin has expanded into air and rail travel, mobile phones, finance, retail, internet, drinks, hotels and leisure, with around 200 companies in over 30 countries.

Virgin Radio, the first national commercial rock music station, was launched on to the airwaves in 1993.

Exhibit 8.1

In 1985, Richard Branson set out from New York to beat the record for crossing the Atlantic by boat, but barely a hundred miles from home the boat had hit some floating driftwood and sank. Richard and the crew had to be plucked from the sea but the escapade made him and his company household names.

A year later, the then Prime Minister Margaret Thatcher felicitated him on the fastest ever Atlantic crossing in a new boat, but it was not enough. Soon he was setting out to be the first to cross the Atlantic by hot air balloon. That trip, too, nearly ended in disaster. At journey's end the balloon, out of control, repeatedly ditched in the Irish Sea. Sir Richard and his pilot jumped. Once more he was plucked from the water.

A FLAMBOYANT ENTREPRENEUR

In the mid-1980s the Branson company was floated on the Stock Exchange, but soon he bought the company back from the shareholders.

In 1994 Richard made a bid to run the National Lottery, promising to give all the profits to charity, and lost. He lost a second attempt in 1999. Meanwhile, the Virgin bandwagon rolled on as he won important franchises in the country's rail network.

In 1999 Richard Branson was knighted for "services to entrepreneurship." He was now Sir Richard Branson.

In 2000 Virgin launched a series of new businesses including Virgin Cars, Virgin Wines, Virgin Student, Virgin Money.com, Virgin Energy and Virgin Travelstore.com. The next year Virgin Trains ran its first "Pendolino" tilting train on the West Coast Main Line with passengers on board. In 2002, the combined sales of the different Virgin holding companies exceeded £4 billion. In addition to his own business activities, Richard is a trustee of several charities including the Virgin Healthcare Foundation, a leading healthcare charity which was responsible for the launch of a health education campaign related to AIDS in 1987. His help in the initial funding of charity projects helped that organisation to raise over £100 million, through campaigns such as Comic Relief and many other charities.

In April 2004 passengers travelled for the first time on the Virgin Super Voyager train, which ran between Reading and Manchester, two major industrial hubs in Britain. Scheduled tilting services

began in September 2004. In June, he set the record for the fastest crossing of the English Channel to mark the 20th anniversary of Virgin Atlantic.

He and fellow adventurer Steve Fossett also displayed an aircraft designed to attempt the first solo-piloted non-stop trip around the world without re-fuelling. In September 2004, Sir Richard signed a £14 m contract to have five "spaceliners" built in the US, set to take Virgin passengers into space by around 2008.

The man who seems to have it all says that he turns people down with extreme difficulty sometimes, because the people he is saying 'no' to are people he does not want to discourage.

(Adapted from: news.bbc.co.uk/2/hi/uk_news).

Exercise 4

VOCABULARY

Match the words with their meanings:

Words	Meanings
(i) Signed up	(a) A showman, an attractive personality
(ii) Floated on	(b) Continued moving
(iii) Rolled on	(c) launched
(iv) Flamboyant	(d) Activity or movement that has suddenly become fashionable or popular
(v) Bandwagon	(e) Where a commitment is made to work together on a project

WRITING (NOTE-TAKING)

(i) You are going to make notes about some of the years in Richard Branson's life. First, discuss with your partner which of the following would be the best note for the year 2000. Be prepared to say why.

  (a) 2000 —— Richard Branson was knighted
  (b) 2000 —— Virgin launched a series of new businesses
  (c) 2000 —— Virgin launched a series of new businesses including Virgin Cars, Virgin Wines, Virgin Student, Virgin Money.com, Virgin Energy and Virgin Travelstore.com.

(ii) **Richard Branson's life**

YEAR   EVENT

_____
_____
_____

(iii) Compare your notes with your partner's. Have you included the same information? Check that you and your partner have written notes, and not full sentences.

Exercise 5

CLOZE-READING

Read the following text and fill in the blanks using the words given below:

Admission	Determination	Next	Turnover	Including
Get	Retest	Turn	Aware of	Spirit
Interacting	Them	Scholarship	World	To
Processing	Free	Set up		

As a child, Sarath did not spend his _____ (i) time at play with other children in the slum where he lived. Instead, he was out hawking the idlis that his mother made _____ (ii) augment the family income. This _____ (iii) of enterprise was to stand him in good stead later in life, when idlis would become the reason for his success story.

He was just six when his father left them _____ (iv) to face starvation. Sarath's mother eked out a living to support her six-member family _____ (v) his two elder sisters and two younger brothers. Her only aim was securing a good education for her children so they could _____ (vi) decent jobs and lead better lives.

_____ (vii) to BITS, Pilani for his graduation was difficult, as the money was hard to come by. But Sarath managed to secure a _____ (viii) Once again, life was difficult. It was a transition from a slum to a _____ (ix) where wealth and privileges dominated. The other students all talked about movies, girls and stuff which Sarath was not even _____ (x). He had hardly seen any movies back in Chennai. Another problem was communication. Though he had studied in an English-medium school, he had an aversion to _____ (xi) in English because of his background. Hence, he would keep away. Slowly, however, he opened up and later passed with flying colours in all his exams.

Sarath then worked with Polaris, a software solutions company, for some time. Meanwhile, he also attempted CAT. "I had heard of the IIMs and was determined to study there," says Sarath. After three years, when he was confident he had done well in the CAT exams, the papers were leaked leading to a _____ (xii) Sarath was dejected. However, he retook the test with the same _____ (xiii) even though he was running a high temperature. "But I cleared it and received calls from all six IIMs," he reminisces.

Soon, the story of Sarath's life took a new _____ (xiv). From making idlis to making grade at an IIM, the future looked bright. But once again, Sarath decided to deviate from the beaten path. He turned down the Rs.9 lakh per annum job offered to him by a tech firm, to _____ (xv) his business. While it would have been easy to take up a corporate job and give his family all comforts they never had, that was not his ambition. Sarath felt that he would rather have his own company and employ people who could support other lives. "Serving someone food is an extremely satisfactory feeling. Moreover, this industry requires less investment but has a high _____ (xvi)."

Sarath's ultimate dream is to target the top 100 customers in the corporate segment in the _____ (xvii)five years. After that, he would like to start a food _____ (xviii) industry. On an average working day, the company sees a turnover of Rs 30,000. "I'm looking forward to buying a car and house for my mother within a few months," says Sarath. His success story has been an inspiration to many. "I'm happy when people say they are inspired. I will also be happy if I could make use of my experience and knowledge to help others, especially students."

Exercise 6

SIMPLE FUTURE

Match the following statements with appropriate responses:

Statement	*Response*
(i) The phone is ringing	(a) No problem. I'll drive you home.
(ii) I'm coming home at eight	(b) I'll have a vegetable burger with French fries.
(iii) I'll call for a taxi.	(c) I'll answer it.
(iv) I'm selling my old car.	(d) I'll wait for you.
(v) What are you going to have?	(e) I'll buy it if you are selling it for Rs. 80,000.
(vi) I need some money.	(f) I'll lend you some.

Let Us Discuss

- What according to you makes a great film?
- Can you think of films which have inspired you in any way? Give examples.

Pre Reading Activity

Read the following passage and answer the questions below:

Reading 3

1. There is a scene in the film Gandhi, where the Mahatma is fasting to protest the communal massacres that followed the partition of India. A fellow Hindu approaches Gandhi*ji* to confess a great wrong. "I killed a Muslim child," says the distraught man, "because the Muslims killed my son." "Find a child," suggests the Mahatma, "whose mother and father have been killed, and raise him as your own. Only be sure he is a Muslim—and that you raise him as one."

Celebrating Human Spirit, Values and Determination… and Learning to Write About Them   **139**
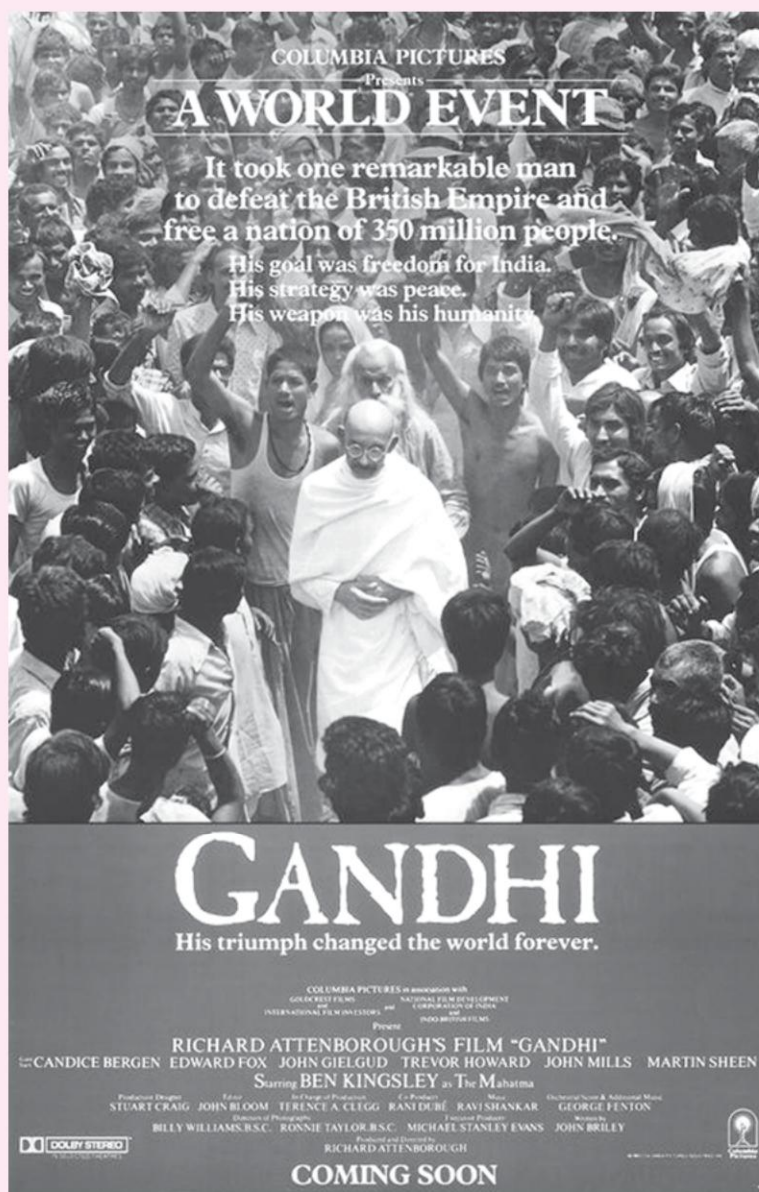
2. When Gandhi was released in 1982, audiences around the world were moved by scenes like this. But for years, producers had consistently turned down director Richard Attenborough's proposal for a film on the Mahatma. Yet Gandhi went on to win worldwide acclaim and eight Oscars, including Best Director for Attenborough, Best Actor for Kingsley and Best Picture.

3. Why do some films unexpectedly achieve greatness? Here is the story of two films both of which are incredible successes. Yet in the beginning, each was regarded by Hollywood moguls as a risky commercial proposition.
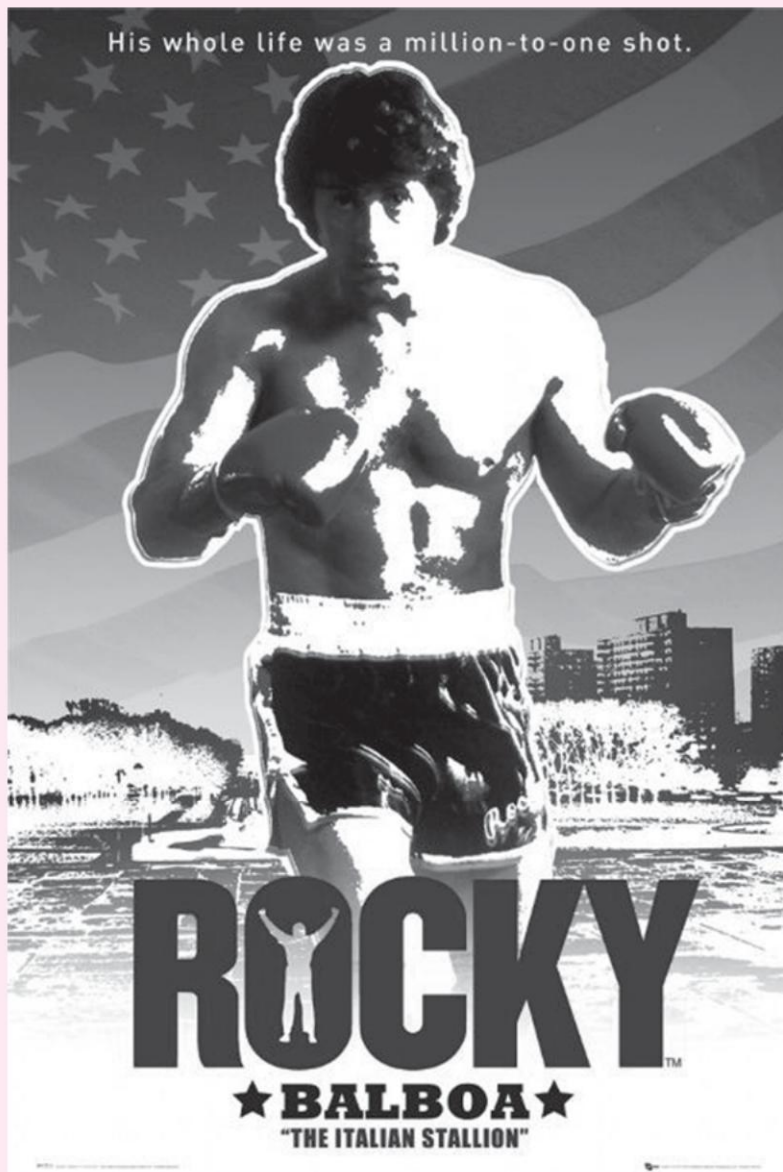
GANDHI (1984)

4. By 1966, Richard Attenborough, then a successful British character actor, was obsessed with making a film about Gandhi. As Attenborogh told a reporter, "I'm excited by this man's life, what he stands for. And I'm fed up with sick, pointless, despairing films being made these days." However, money was hard to raise for a film on Gandhi. Major studios told Attenborough, "Nobody is interested in a picture about a man dressed in a sheet."

5. Over the years, Attenborough turned down 40 acting roles and a dozen directing jobs to pursue his goal. He even declined to become associate director of Britain's National Theatre because it would mean giving up Gandhi forever. Finally, money came in from sources outside the Western film industry, including Rs. 3.6 crores from India's National Film Development Corpration (NFDC), and by 1981 Attenborough was in India directing his epic.

6. The finished film covered half a century of India's struggle in three hours and eight minutes. Ben Kingsley, just 37 but already a veteran of England's Royal Shakespeare Company, played Gandhi from 1894—when, as a 25 year old London educated lawyer, he was thrown out of a first- class railway compartment in South Africa to 1948, when he was assassinated on his way to evening prayers in New Delhi. Scene after scene dramatised Gandhi's belief: "When I despair, I remember that all through history the way of truth and love has always won. There have been tyrants and murderers, and for a time they can seem invincible—but in the end they always fall. Always."

7. When Attenborough showed his film to major distributors in Los Angeles, "Every company that had turned it down over the past 20 years bid for it," he told the *New York Times*. Even before the Oscar night, Gandhi took in $38 million at US box offices alone. It was, said the *Times*, "an event not to be missed."

ROCKY (1975)

8. Sylvester Stallone was an out of work American actor when he decided to create a hero for "the common man". One day, he watched the world heavyweight boxing champion Muhammad Ali pummel a little-known fighter named Chuck Wepner. Before Ali knocked him out, Wepner nearly "went the distance"—the full 15 rounds —winning respect from fans and giving Stallone his hero.

9. Stallone wrote the story of Rocky Balboa, a small-time Philadelphia boxer who gets a long shot chance to fight the then champ. What the champ doesn't know is that Rocky Balboa is inspired by the love of a shy pet-store salesgirl named Adrienne.

10. Stallone wrote the final draft and then set out to sell it. Producers were interested in the story—for big stars, and not the unknown Stallone. But Stallone knew Rocky could make him a star. Though he and his wife had no money and she was pregnant, Stallone refused $265,000 for the script from producers who wouldn't let him play the lead.

11. Finally, producers Irwin Winkler and Robert Chartoff agreed to let Stallone play Rocky. Rocky went on to win Oscars in 1976 for best picture and best director, and it has endured as one of the most popular films ever made. Over the years, it has returned more than 60 times what it cost. What's more, Rocky Balboa has gone on to fight the good fight in five other Rocky films, including the 2006 Rocky Balboa—grossing in all over a quarter of a billion dollars.

Exercise 7

VOCABULARY

Match the following with their approximate meanings. Compare your answers with your partner and check with a dictionary:
   (i) consistently   (a) to think of only one thing
  (ii) obsessed   (b) to kill an important person
 (iii) acclaim   (c) to kill a number of people
  (iv) grossing   (d) without a break
   (v) assassination   (e) who cannot be defeated
  (vi) tyrants   (f) high praise
 (vii) invincible   (g) beginning
(viii) incredible   (h) making money
  (ix) infancy   (i) domineering
   (x) massacre   (j) something which cannot be believed

Exercise 8   Guess the meaning of the following expressions from their contexts:
   (i) 'The audience were moved by scenes like this' (Para 2)
  (ii) 'Risky commercial proposition' (Para 3)
 (iii) 'Turned down' (Para 5)
  (iv) 'Out of work' (Para 8)
   (v) 'Long shot chance' (Para 9)

Exercise 9   *Answer the following in brief:*
   (i) Why was the film *Gandhi* consistently turned down by producers?
  (ii) What did the audience find special about the film *Gandhi*?
 (iii) Describe, in your own words, Sylvester Stallone's journey from an out-of-work actor to a successful star.

Exercise 10   *Fill in the blanks with appropriate words from the passage*:
   (i) Ramayana and the Mahabharata are the two famous _____ of India.
  (ii) The old lady was _____ down by a speeding car.
 (iii) Jane Austen's novel, Pride and Prejudice has _____ as a classic of English Literature.
  (iv) This sounds like _____ business; no one will agree to finance it.

WRITING

Among all the inspirational lives you have read in this chapter, which one do you admire most? Write your answer in about 150 words.

SPEAKING: ENACTING ROLES

The following is a speech from the film *Gandhi.* Read it silently first and then enact the various parts. Take turns with different parts:

Gandhi: Let us begin by being clear about General Smuts' new law: all Indians must now be finger-printed, like criminals, men and women. No marriage, other than a Christian marriage, is considered valid. And our policemen, passing an Indian dwelling — I will not call them homes—may enter and demand the card of any Indian woman whose dwelling it is. Understand, he does not have to stand at the door. He may enter.

Audience Member 1: I will not allow it.

Audience Member 2: I swear to Allah: I'll kill the man who offers that insult to my home and my wife. And, let them hang me.

Gandhi: I praise such courage. I need such courage because in this cause I, too, am prepared to die. But, my friend, there is no cause for which I am prepared to kill. Whatever they do to us, we will attack no one, kill no one, but we will not give our fingerprints … not one of us.

They will imprison us, and they will fine us. They will seize our possessions, but they cannot take away our self-respect if we do not give it to them.

Audience Member 3: Have you been to prison?! They beat us and torture us! I say that we should —

Gandhi: I am asking you to fight! To fight against their anger, not to provoke it. We will not strike a blow, but we will receive them. And through our pain we will make them see their injustice, and it will hurt—as all fighting hurts. But we cannot lose. We cannot. They may torture my body, break my bones, even kill me. Then, they will have my dead body—not my obedience.

We are Hindu and Muslim, children of God, each one of us. Let us take a solemn oath, in His name, that come what may we will not submit to this law.

Let us Revise
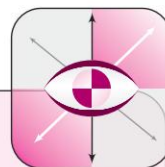
Correct errors in the following sentences, and give reasons for your answers:
  (i) One of the most important discoveries in the past years are the discovery of galaxies.
 (ii) They spend more money then they earn.
(iii) They have forgot their responsibilities.
 (iv) They were cultured but are not wise.
  (v) Since it's Sunday, I remembered of the church.
 (vi) It has many aspects to cultivate interest in sports in everybody.
(vii) We can find deers running all over the campus.
(viii) The people were highly cultured one's

Answer key
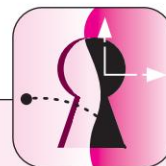
Exercise 1

Obnoxious, intrepid, negligent, genuine, extravagant, adroit, incoherent, prodigious

Exercise 2

1. (a)   2. (g)   3. (f)   4. (e)   5. (d)   6. (b)   7. (c)

Exercise 4

(i) (e)   (ii) (c)   (iii) (b)   (iv) (a)   (v) (d)

Exercise 5

(i) free   (ii) to   (iii) spirit   (iv) them   (v) including
(vi) get   (vii) admission   (viii) scholarship   (ix) world   (x) aware of
(xi) interacting (xii) retest   (xiii) determination   (xiv) turn   (xv) set up
(xvi) turnover (xvii) next   (xviii) processing

Exercise 6

(i) (c)   (ii) (d)   (iii) (a)   (iv) (e)   (vi) (f)

Exercise 10

(i) epics   (ii) pummeled   (iii) endured   (iv) risky

Let us revise

(i) One of the most important discoveries in the past years is the discovery of galaxies. (Errors of subject and verb agreement).
(ii) They spend more money than they earn. (Error of the comparative adjective 'than').
(iii) They have forgotten their responsibilities. (Error of tense).
(iv) They were cultured, but not wise. (Errors of inconsistency of tenses)
(v) Since it's Sunday, I remembered going to the church. (Error of preposition)
(vi) It has many aspects to cultivate everybody's interest in sports. (Errors of word order)
(vii) We can find deer running all over the campus. (Error of countable nouns)
(viii) The people were highly cultured. (Error of apostrophe 's')
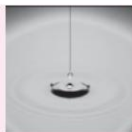
CHAPTER 9

Let us Travel…
In the World of the
Written Word

CHAPTER OUTLINE

In this chapter you will learn about the following
- Supplying the middle and endings of paragraphs
- Summarising
- Expressing agreement with a statement
- Understanding a railway time-table
- Comparative adjectives

Read the following and fill in the gaps in the body of the text:

AIRBUS 380

It's the largest passenger jet ever built; so huge that airports have to be redesigned to accommodate it. It can pack in more passengers and cargo than any other commercial airliner, yet its designers claim it will actually increase efficiency, use less fuel and generate less noise

      The Airbus A380 is generating a lot of excitement in the airline industry, with many people wondering if the world is ready for a plane this big. Plus, the programme has been plagued by expensive delays. Although it has taken three test flights … one in September 2006 and two in March 2007 … the delays still lead some to wonder if it will ever be finished and ready for commercial production.

_____

_____

The Airbus A380 is truly a giant. It has a wingspan of 261.8 feet (79.8 meters), a length of 239.5 feet (73 meters) and a maximum take-off weight of more than 1.2 million pounds (540,000 kg).

While it is the largest passenger airliner ever made, it is not the biggest airplane in the world … this honor belongs to the Ukrainian An-225 Cossack.

A plane of this size can potentially carry hundreds more passengers than today's airliners. The A380's two passenger decks, with a cargo deck below, could be outfitted in a single-class configuration to take on up to 840 passengers. However, Airbus isn't focusing on that option, instead designing a three-class configuration for 555 passengers. That's still a marked increase over the 416 passengers that can fit into a Boeing 747-400, the current leader in passenger capacity.

Hints

You are not expected to provide a specialised answer. We know that you may not be aware of the latest developments in international aviation, and this is not a test of general knowledge. All you are required to do is to look at the preceding and the following sentences that follow the gap. For example, the preceding sentence discusses the delays in the manufacture of the plane, while the following section speaks about its size.

What can logically fall in between?

Exercise 1 Make sentences using the following verbs. Check your answers with your partner:

Absorbs	Appears	Freeze	Floats	Weighs
Consists of	Comprises	Melts	Boils	

COMPARATIVE ADJECTIVES

All of us have learnt the comparative degree of adjectives in school. Let us revise what we already know:

Positive/Absolute	Comparative	Superlative
Tall	Taller	Tallest
Calm	Calmer	Calmest
Good	Better	Best

UNCOMPARABLE ADJECTIVES

However, it must be noted that not all adjectives are comparable. Here is a list of some common adjectives which exist only in their positive degrees:

Absolute	Equal	Main	Uninhabitable
Basic	Essential	Major/minor	
Certain	Excellent	Meaningless	

<div align="right">(Contd)</div>

(Contd)

Chief	Final	Perfect
Complete	Fundamental	Primary
Empty	Immortal	Ultimate

ADJECTIVAL SUFFIXES

Exercise 2 ↗ Given below is a list of suffixes that form adjectives. Try to make at least three words with each suffix; compare your answer with your partner's:

Suffix	*Example of adjectives*
-able/-ible	
-al	
-ed	
-ful	
-ish	
-ive	
-less	
-ic	
-ous	
-y	

Exercise 3 ↗ Give a suitable conclusion to the passage given below.

The Air Car is on its way

The world's first commercial compressed air-powered vehicle is rolling towards the production line. The Air Car, developed by ex-Formula One engineer Guy Nègre, will be built by India's largest automaker, Tata Motors.

The Air Car uses compressed air to push its engine's pistons. It is anticipated that approximately 6000 Air Cars will be cruising the streets of India by 2008. If the manufacturers have no surprises up their exhaust pipes the car will be practical and reasonably priced. The CityCat model will clock out at 68 mph with a driving range of 125 miles.

Refuelling is simple and will only take a few minutes. That is, if you live nearby a gas station with custom air compressor units. The cost of a fill up is approximately $2.00. If a driver doesn't have access to a compressor station, they will be able to plug into the electrical grid and use the car's built-in compressor to refill the tank in about four hours.

The compressed air technology is basically just a way of storing electrical energy without the need for costly, heavy, and occasionally toxic batteries. So, in a sense, this is an electric car. It just doesn't have an electric motor.

_____

_____

Hint

As earlier, you are not supposed to write a knowledgeable conclusion. Just read the passage thoroughly, and use your judgement as to what could be an appropriate ending for such an article.

SUMMARISING

What is a Summary?

A summary is a short, yet coherent version of a text. It is especially useful in formal settings, such as classroom lecture, business documents, speeches and reports. Since no one has the time to go through the minute details of each and every document, summary helps in keeping track of whatever is essential in an official environment.

Why use Summarising?

It has two major benefits: it gives a ready reference to the audience (reader/listener) to understand the main ideas or highlights of a text; also, it saves time.

The person who writes a summary therefore has a great responsibility of taking down only those points which are of utmost relevance. It is always preferable to make notes before writing a summary.

Characteristics of a Summary

  (i) Summary should be approximately one-third of the original length of the text.
 (ii) It should be written in one's own words.
(iii) It should make use of the linking devices.
 (iv) There should not be any extra details by the writer.
  (v) Statistical details, examples and illustrations can be omitted unless very essential.
 (vi) Language should be plain and direct. You can omit proverbs and quotations.
You can visit the following sites to learn more about summarising:
  • http://www.sdst.org/shs/library/sumparquo.html
  • http://its.guilford.k12.nc.us/act/strategies/summary.htm
  • http://owl.english.purdue.edu/handouts/research/r_quotprsum.html

Let Us Discuss

Speaking in Pairs

• These days there has been a substantial fall in the cost of air travel due to low cost of flying. Consequently, more and more people are travelling by air. What do you think of this trend? Discuss its advantages and disadvantages with your partner and make notes.

Read the following feature on problems of air-travel in India and summarise the article:

Air travel in India: Some Growing Concerns

Flying during peak hours increasingly resembles a ticket to hell. Many executives who are frequent fliers have ended up missing interviews and meetings because of delays in flights. Statistics have shown that almost seventy percent of the flights that take off or land in Delhi or Mumbai are delayed. Some of the most commonly cited reasons are: tyre bursts, skids and random mishaps. A case in point: a few months ago, 13,000 passengers booked for 100 flights were delayed by one to three hours in Delhi because the main runway was blocked by an immobilised Air-India aircraft.

We are fast losing the biggest advantage of air travel, which is, saving time. The dramatic increase in new airlines has led to an exponential growth in the number of flyers and choked the nascent aviation infrastructure. In 2006, approximately 90.4 million people in India flew, 22 million more than in 2005. The number of domestic airlines has doubled to 12 since 2004. Competition for more footfalls has resulted in aggressive price wars. Daily 1.63 lakh seats are up the takers for as little as Rs. 3,000-5,000 per seat. On an average, a Delhi-Mumbai ticket can be grabbed for Rs. 2,200. To meet the demand, domestic airlines now have 321 planes compared to 248 last year. It is expected to double by 2012.

It is now becoming painfully evident that the policy-makers did not (and still do not) have a well-thought out plan to combat this problem. Although a small beginning was made last year when Delhi and Mumbai airports were handed over to private companies for upgradation to world-class standards, yet the phenomenal growth has made the plans ineffectual. A spokesperson of Mumbai International Airport Ltd says, "There is hardly any scope for expansion at Mumbai airport."

Unarguably, the root of all problem lies with policy formulation. As with airlines and passengers, the policy makers are also struggling to find feasible ways. One hopes that the demand pressure from passengers will lead to resolution of several such issues. **(Total no. of words: 335).**
(Adapted from the article "Space Jam". *India Today*. May 21, 2007).

Exercise 4
↗

(i) Suggest an alternative title for the above passage.

(ii) Give alternative meanings for the following. Look up the dictionary to check your answers:
  (a) ticket to hell
  (b) mishaps
  (c) exponential
  (d) footfall
  (e) feasible

SUMMARY

Read the summary of the above article.

   Flying in India is becoming increasingly difficult for the passengers. Although low cost of air travel attracts customers, the airports are unable to cope with the growing demand. Poor aviation infrastructure causes delays and accidents, resulting in inconvenience for the travellers. Today there are more airlines than ever before, and this, coupled with, low rates of air tickets, have led to more passengers preferring to go by air. However, the infrastructure does not match up to the demand. Steps like privatisation of airports have not yielded much success. Clearly, a change in aviation policy is the only way out. (99 words)

- Do you think it is a good summary? Does it cover all the essential requirements of summarising?
- Can you think of ways to improve it?

WRITING: PAIR-WORK

Describe the best and the worst traveling experience of your life. You should cover the following aspects:

- Where were you travelling to, and for what purpose?
- The mode of transport used
- The situation at the railway station/bus stand/airport
- Co-passengers

You may use the adjectives given below to describe your experience:

Phenomenal	Helpful	Irritable	Stinking
Poor service	Clear	Noisy	Impatient
Nuisance	Filthy	Troublesome	Helpful
Incomprehensible	Unhygienic	Sparkling clean	Talkative
Over-crowded	Luxurious	Tranquil	Excellent
Loud	Spacious	Congested	Uncooperative
Difficult			

Let Us Discuss

For your Notebook
- Look at the words given below and predict the kind of text you are going to read:
  Massive trailer   Goods hauling vehicle   Economic development   Rural areas
- Are you familiar with Australian road trains? Discuss with your partner and write down points.
  Share your notes with your class.
- How are goods transported to the rural areas in our country?

Reading 3

Welcome Aboard on Australia's Road Train

A road train consists of a relatively conventional prime mover, but instead of pulling a single semi-trailer the road train pulls more than one of them.

An average road train has a giant cab roll followed by a trailer almost as long as a railway goods wagon car and nearly five metres high. Behind that comes a second massive trailer, which is followed by another, as tall and long as the others.

Welcome to the world of the biggest general-goods-hauling vehicles in the world, roaming over a million square kilometers of Australia, carrying food, fuel, and other necessities to the outback population. Road trains can stretch up to half the length of a football field. Driving them is not an easy process. It is like driving a car with three caravans attached, and then multiplying the weight about 30 times. Their cost-effective transport has played a significant part in the economic development of remote areas, with some communities totally reliant on a regular service.

A regular cab is as high as a bungalow and one has to climb a built-in ladder to get in. The cab generates 525 horsepower, but the inertia of the payload is so massive that a driver has to work through all 18 gears to acquire a cruising speed of 85 kmph. It is important to know one's way on a road train because doing a U-turn or reverse is next to impossible.

Despite their skill, road-train drivers can have an average of one accident a year, mostly collisions with stray cattle or minor bumps in small towns.

After the World War II, many new settlers to Australia arrived in the north, populating the mining camps and cattle stations. With such a scattered population in a vast area, the territory could not sustain an extensive railway system to carry cattle to market. Cattle growers needed faster, more economical ways of moving stock to the railheads. Earlier, it took five months to drive cattle 150 kilometres on horseback, and the stock would arrive in bad shape.

Road trains can be unwieldy, and driving and manoeuvering them safely is only possible because of Australia's tough regulations regarding licensing and driving experience. The multiple dog-trailers are unhooked, the dollys removed and then connected individually to multiple trucks at "assembly" yards when the road train gets close to populated areas.

When the road train trailers are empty, and there is no available freight, it is common practice to stack them. This is commonly referred to as "doubled-up" or "doubling-up". Sometimes, if many

trailers are required to be moved at the one time, they will be tripled stacked, or "tripled-up". This method works only with flat-top trailers.

In 1999 Marleys Transport made a successful attempt on the record for the world's longest road train. The record was created when 45 trailers were pulled by a truck for 8 km. In 2003, the record was surpassed by a road train consisting of 87 trailers and a single prime mover.

In 2006, a truck with 112 semi-trailers (at a length of 1,474.3 metres) claimed a new record at Clifton, Queensland.

ACTIVITY

Make notes based on the above text. You may use the following outline.
Definitions:
Functions:
Structure (exterior):
Mechanism:
Merits/pitfalls:
Any other:
- Based on your notes, write a summary of the passage.

Exercise 5

VOCABULARY

1. Select the odd word out from each group:
   - (i) trailer, semi-trailer, cab, driving
   - (ii) unwieldy, unmanageable, freight, impossible
   - (iii) horsepower, extensive, massive, huge
   - (iv) food, dolly, fuel, cattle
2. Comprehension
   State whether the following statements are true or false:
   - (i) To manoeuvre is to use something skillfully.
   - (ii) Road trains were particularly developed to cater to the interiors and rural areas of Australia.
   - (iii) Road trains are quite easy to manage, with very low chances of accidents.
   - (iv) A road train has several parts to it.

Exercise 6

COMPARATIVE ADJECTIVES

Complete the following sentences using the appropriate form of the words given in the brackets:
(i) Road trains are _____ unwieldy than _____.

Those big-big Machines

It is a common practice among Indian speakers of English to repeat adjectives while describing someone or something. It is therefore not unusual to find students using expressions like, 'small-small things', 'funny-funny people', 'big-big eyes', etc.

Although these expressions have found place in everyday usage, it is not advisable to employ them in formal communication.

(ii) Road trains are the _____ (long) of all vehicles in the world.

(iii) Road trains are _____ (cheap) than any other means of transport in Australia.

(iv) The truck used in the year 2006 was _____ (long) than those used earlier.

(v) Road trains are not the _____ (safe) of all the other means of transports.

Exercise 7

Railroads in Australia can also be expressed as Australian railroads. Given below are names of some countries. Fill in the blanks with appropriate nationalities:

(i) Helmut Kohl is from Germany, he is _____

(ii) Vito is from Italy, he is _____

(iii) Stuart is from Luxembourg, he is _____

(iv) Yani is from Greece, he is _____

(v) Charles is from the United Kingdom, he is _____

(vi) Joshua is from the Republic of Ireland, he is _____

(vii) Otto is from Denmark, he is _____

(viii) Juan is from Spain, he is _____

(ix) Vasco is from Portugal, he is _____

(x) Johann is from Holland, he is _____

(xi) Mia is from Japan, she is _____

Expressing Agreement with a Statement

In our day-to-day conversation, we need to choose the right word or phrase to suggest that we agree with the speaker.

We express agreement with a speaker in various ways. Some of these expressions are:

- Undoubtedly
- Sure
- I agree (with you)
- Exactly
- Quite right
- Absolutely
- Certainly
- Positively

Exercise 8

Use the above expressions to fill in the blanks given below. One example has been done for you.

Let's go for a walk.

Sure.

1. I always felt that Jackie is a dishonest person.

_____

2. This is not the kind of weather when we should be going out.

_____

3. We ought to report the matter to the police.

_____

4. Divya is the most beautiful girl in our class.

_____

5. I am certain that Hemant would help us.

_____

6. We shall reach Hyderabad by 10a.m.

_____

Exercise 9

Summarise the following passage, and give it a suitable title:

In these times of supersonic flight and space shuttles, why would anyone bother to develop a super fast rail train? In France, it was purely to met the demand of the passengers. The link between Paris and Lyons has always been one of France's busiest. The existing train system, despite being four tracked over half its distance, was simply not adequate to meet the passenger numbers. So the French National Railways decided to totally transform the rail link. Looking around at recent developments around the world – especially in Japan with their impressive Bullet train on the Tokaido line – the French decided to build a completely different system. The result was the TGV – the Train a Grande Vitesse or High Speed Train.

The very first electric TGV launched in 1981 was the TGV sud-est, which in commercial use travels at speeds up to 168 mph (270 km/h)and set a speed record of 236 mph (370km/h) in 1981, which was a world record for a train at the time. Interestingly, this is the slowest TGV around, as all other generations of TGV can run at up to 186mph (300km/h) in commercial use. There are about a hundred of these trainsets in operation. This was a complete success story, although not getting government backing this created the most profitable service on SNCF, and paid for itself in just a few years. This success story is what lead to the later generations of the TGV.

Since then the TGV has grown and new generations have appeared, like the TGV Atlantique, the grey train.

TGV RÉSEAU

This generation is visually indistinguishable from the TGV Atlantique, although it does have some differences. It was designed to run on the whole TGV network, and it has an important feature, the passenger coaches are pressure sealed. This is because when trains enter tunnels at speeds over 100mph or 160km/h, large pressure changes can occur which can be painful to passengers' ears. This is the first train in the world to be sealed. Called Reseau because it means network, and this is designed as a full

network TGV. It was introduced in 1993. This represented the 3rd generation of TGV, the first TGVs to have a design speed of 200mph or 320km/h.

It was decided from the outset that the train would be exclusively for passenger transport. It was also to be without any tunnels, despite the fact that it was to traverse hills on its journey. This would be achieved by way of the train's extremely lightweight design. Each group of eight cars was to have very powerful electronic engines. This would allow the train to travel up much steeper grades than a conventional train. In fact gradients on the TGV line reach 3.5 percent as opposed to 1 percent on conventional rail lines. The high speed of the TGV means that it is carried most of the way up hills by its own momentum.

The TGV is a prominent looking orange and charcoal with a long sleek nose. It is much lower down than a conventional train as a result of the bogies being paced between the cars as opposed to under the cars on conventional trains. Another benefit of this is that no passengers are seated above the wheels. This equates to a much smoother ride.

The construction of the track also contributes to the speed and efficiency of the TGV line. Rails are welded into very long sections and sit on thick rubber cushions in the clips that are anchored to the cross ties, or sleepers. The ballast is also set considerably deeper than is the case with conventional rails.

Inside the TGV you would almost believe that you were aboard a plane. With individual lighting, separate seats and spacious aisles the result is a very comfortable ride. The compartments are also separated into first and second class. In first class hot meals may be ordered from stewardesses and hostesses. The second class compartments have a snack bar in the middle of each of their eight cars.

A computer system oversees the running of the TGV line. A switching and controlling system regulates the spacing of trains and transmits instructions to the engineer, either by automatic remote controlled transmission or telephone and radio. The entire line is protected by wire fencing on each side. Also, every time a highway crosses overhead, there is a wire netting safety device that can detect any heavy object that may fall on the line. If an object did fall, an alarm would sound and halt all approaching traffic.

Travelling on the TGV line is no more expensive than on conventional rail systems. The distance between Paris and Lyons (some 426 kilometers or 265 miles) can be covered in a little under two hours. This is often faster than going by air. The TGV will get you there at a speed of approximately 250 kilometers per hours.

So, if you want to experience the sensation of flying on wheels, seek out the TGV line when you're next travelling in France. It'll definitely get you where you're going faster.

PRACTICE

The article talks about 'Japan with their impressive bullet train on the Tokaido line' which inspired the TGV of France. Find more on Bullet trains and compare it with TGV. You may organise your notes as follows:

Bullet train of Japan	*TGV of France*
Year of introduction	Year of introduction
Speed	Speed
Physical description (exferior)	Physical description (exterior)
Physical description (interior)	Physical description (interior)
Geographical areas covered	Geographical areas covered
Innovative techniques used	Innovative techniques used

VOCABULARY

Spell it Right!

Consider the sentence, "It'll *definitely* get you where you're going faster."

The word 'definitely' with four vowels is one of the many words which students at your level end up misspelling. Another common mistake is in the use of words like 'receive' and 'achieve', where students are often unsure about the order of the vowels *e* and *i*. The well-known rhyme goes as, "*i* before *e*, except after *c*". But the complete rule is: When the vowel sound is *i*, represent the sound by spelling *ie*; but after *c*, it is spelt as *ei*.

Here are some examples:

ie	*ei* after *c*
Achieve	Deceive
Friend	Conceive
Grief	Receive
Siege	Perceive
Fief	Conceit

A simple rule is the words where there is the *ei* pattern in their verb forms, take the suffix –*tion* in their noun forms. (You have already learnt about word-formation in ***Chapter I***).

Examples: *conception*, *reception*, *deception*, and *perception*.

Exceptions with *e*i representing the sound *i* when it does not come after *c* are: *protein, heinous*, counterfeit, *caffeine*, seize. Also, there are a number of words with *ei* which may or may not have the sound *i,* as in *heifer*, *weight*, *height*, *neither*, *heir*, *deity*, *weird*, *reign*, *neighbour*. Similarly, in the spelling *ie*, there are words which do not have the sound *i* such as: *science, financier*, *conscience*, *sufficient*, *friend*.

In spite of the above discussion, you must know that there are no hard-and-fast rules of spelling in the English language, and practicing regularly is the best means to master this skill.

Exercise 10 ↗ Fill in the blanks with appropriate vowels. Check your answers with a dictionary:
  (i) Defin-te
  (ii) Hypocr-si
  (iii) Fr-volous

(iv) Rep-tition
(v) Permiss-ble
(vi) Adapt-ble
(vii) Feas-ble
(viii) Adapt-ble
(ix) Sal-ble
(x) Convert-ble

Pre Reading Activity

Let Us Discuss

- Have you ever looked at a railway time-table? When was it and why? Discuss it with your partner, and share your experience with your class.
- What are the words commonly found in a railway time-table? Work with your partner and make a list. Compare your list with the other members of your class.

Reading 4

Read the following time-table for the tour programme for 'Palace on Wheels' train:

Tour Programme

Delhi Cantt. Day – 1 Wednesday	Dep. 2245 hrs	Dinner on board
Jaipur Day – 2 Thursday	Arr. 0830 hrs Dep. 2210 hrs	Strains of the *shehnai* will welcome you to the Pink City of **Jaipur**. Lunch at Rambagh Palace. Discover Hawa Mahal, Nahargarh Fort, Amber Fort..... the silent sentinels of a glorious era.
Chittorgarh Day – 3 Friday	Arr. 0730 hrs	Images of love and valor; scars of battles fought, three times besieged, **Chittorgarh** is all this and more. Moving legends of honour and pride will echo in your mind as you proceed to Udaipur.
Udaipur Day – 3 Contd.	Dep. 2200 hrs	The city of lakes, palaces and gardens, temples and forts...**Udaipur**. Lunch at the Lake Palace Hotel, the former summer residence of the Princes of Mewar. Enjoy the tranquility of Lake Pichoda. Visit the City Palace in all its ancient glory, the resi-dence of the Maharajas of Udaipur.

(*Contd*)

(*Contd*)

Sawai Madhopur Day – 4 Saturday	Arr. 0630 hrs.	Dep. 1230 hrs	Welcome to verdant **Sawai Madhopur** and the magnificent 10th century fort of Ranthambhor. Surrounded by the Ranthambor National Park, a Project Tiger reserve, the imposing ramparts of the fort soar above...they have lots for you.
Jaisalmer Day – 5 Sunday	Arr. 0900 hrs.	Dep. 2330 hrs.	12th century city of **Jaisalmer** dominated by its sandstone fort, exquisitely carved havelis and palaces with their latticed windows, balconies, and facades, also offers the famed camel safaris & desert camps. Dine under the stars as the rhythm of Rajasthani music drifts into the night.
Jodhpur Day – 6 Monday	Arr. 0900 hrs.	Dep. 1545 hrs.	The Mehrangarh Fort is all pervasive in this 15th century city. Visit this magnificent fort and Jaswant Thada, a Royal cenotaph close by. Lunch at the Ummaid Bhawan Palace, the royal residence, a part is now a hotel.
Bharatpur Day – 7 Tuesday	Arr. 0715 hrs		Keoladeo Ghana National Park at **Bharatpur**, once the preserve of The Maharaja of Bharatpur and now a world heritage site. It is home to 300 species of birds, some flying in from as far as Siberia and China.
Agra Day – 7 Contd.	Dep. 2000 hrs		Lunch at the Taj View in **Agra** and proceed to the Taj Mahal. Built by Mughal emperor Shah Jahan to commemorate eternal love for his queen, Mumtaz Mahal. The city of Agra offers you many more monuments and tombs, all exquisite in architectural skill and beauty.
Delhi Cantt. Day – 8 Wednesday	Arr. 0730 hrs		Breakfast on board and return to **Delhi Cantt.** Rly stn.

(Adapted from: http://www.indianrail.gov.in/palaceonwheel.html)

Exercise 11

VOCABULARY

Find one word from the above text for the following:
- (i) To fly high
- (ii) To remember officially and give respect to a great person or event
- (iii) Full of greenery
- (iv) Peace
- (v) Beautiful in perfect way
- (vi) A large wall built round a town
- (vii) Surrounded with a view to capture
- (viii) Intricately designed structure, particularly made from strips of wood
- (ix) Stories that have become a part of our culture
- (x) Variety of animals or birds

UNDERSTANDING A TIME-TABLE

Answer the following in a word or two. Check your responses with your partner's:
- (i) At which place can you get greeted by strains of *shehnai*?
- (ii) When do you arrive at the Ranthambor fort?
- (iii) When do you depart from Bharatpur?
- (iv) Where are you offered camel safaris?
- (v) When do you reach Delhi cantt.?
- (vi) In which city will you find the Mehrangarh fort?

Exercise 12 Find the full forms for the abbreviations given in the text:
- Contd:
- Cantt:
- Dep:
- Arr:
- Rly stn:

WRITING

Find out more about 'Palace on Wheels'. Would you like to travel in it? Give reasons for your answer.

SPEAKING

Describe a traveling experience you have really enjoyed. You may cover the following:
- Which place did you visit?
- How did you reach?
- Where did you stay?
- What did you do there?

Let us Revise
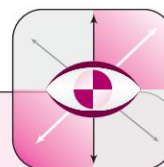
1. Say whether the following statements are true or false about the summary skills:
    (i) Writers can use words of their own.
    (ii) Writers need to always supply the title.
    (iii) Most examples and quotations can be omitted.
    (iv) The length should preferably be one-third of the total length of the passage.
2. Correct the errors in the following:
    (i) I am hearing a strange noise.
    (ii) He is having a pretty wife.
    (iii) I have seen the film last week.
    (iv) When have you lost your iPod?
    (v) My aunt did not arrive yet.
    (vi) My mother just got up.
    (vii) The Sharmas lived here all their lives.
    (viii) Kaushik is working here since 1985.
    (ix) She is sleeping for nine hours.
    (x) The teacher shall punish you if you will come late.

Answer Key
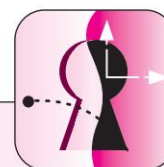
Answer to Reading 1

In this article, we'll find out just how big it is, how many people it can carry and whether it will revolutionise commercial aviation or turn out to be a flash in the pan.

You may not have exactly written the same response, however, this is just to demonstrate that this is one of the many possible answers.

Exercise 5
1. (i) driving   (ii) freight   (iii) horsepower   (iv) dolly
2. (i) True   (ii) True   (iii) False   (iv) True

Exercise 6
(i) more   (ii) longest   (iii) cheaper   (iv) longer   (v) safest

Exercise 7
(i) German   (ii) Italian   (iii) Luxembourger
(iv) Greek   (v) British   (vi) Irish
(vii) Danish   (viii) Spanish   (ix) Portuguese
(x) Dutch   (xi) Japanese

Exercise 11
(i) soar   (ii) commemorate   (iii) verdant
(iv) tranquility   (v) exquisite   (vi) rampart
(vii) besieged   (viii) latticed   (ix) legends
(x) species

Exercise 12
- Contd.: continued
- Cantt: cantonment
- Dep: departure
- Arr: arrival
- Rly stn: railway station

Let us revise
1. True, False, True, True
2. (i) I hear a strange noise.
   (ii) He has a pretty wife.
   (iii) I saw a film last week.
   (iv) When did you lose your iPod?
   (v) My aunt has not arrived yet.
   (vi) My mother has just got up.
   (vii) The Sharmas have lived here all their lives.
   (viii) Kaushik has been working here since 1985.
   (ix) She has been sleeping for nine hours.
   (x) The teacher shall punish you, if you come late.
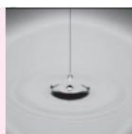
CHAPTER 10

Pioneers and Innovations…And the Language that's 'Cool'

CHAPTER OUTLINE

In this chapter you will learn about

- Understanding collocation
- Writing instructions
- Understanding nominalisations
- Conditional sentences beginning with 'if'
- Writing essays

Pre Reading Activity

Let Us Discuss

- Do you like listening to music? Which is your favourite type of music? Justify your choice.
- Compare the experience of listening to music on the following:

Radio	*CD/Walkman*	*iPod*
Advantages	Advantages	Advantages
(i) _____	(ii) _____	(i) _____
(ii) _____	(ii) _____	(ii) _____
Disadvantages	Disadvantages	Disadvantages
(i) _____	(ii) _____	(i) _____
(ii) _____	(ii) _____	(ii) _____

Ideas on iPods

The iPod Nano does not come with all features available on the market such as an FM radio, a voice recorder, or line-in recording. Still, these features can or will be added in some way or another with the multitude of third-party accessories available. It's hard to compare the Nano to more traditional full-featured flash player such as Creative's MuVo Micro or Cowon's iAudio U2, both of which max out at 1GB and lack photo displays but incorporate line-in recording and an FM tuner into smaller, but not slimmer, form factors. Those who want an FM tuner, should not get a Nano; however, for those who are into digital music, audiobooks, and podcasts, the Nano is a good choice made even more so by its compatibility with iTunes and its Music Store.

Once you connect a Nano to iTunes, it will show up immediately in the source list. The users can configure their relationship with iTunes in the Preferences panel under iPod. One can have iTunes automatically update songs and playlists or go manual, the same goes for podcasts, contacts, and calendars. Photos can be synchronised from iPhoto in Mac or My Pictures in Windows; while these files are automatically formatted for the iPod, the user can also store, though not view, full-size images directly within iTunes. In a nutshell, the iTunes side of the iPod experience truly makes the iPod better, though some of those who prefer to use another store don't have many options besides MP3 download sites and Real's Rhapsody Music Store. For more detailed information on the iPod's audio features, read our review of the 20GB iPod.

Performance of Apple iPod Nano (4GB, white)

The Apple iPod Nano is one of the faster players we've used in terms of navigation speed. Generally, MP3 players, especially hard drive-based players, pause for buffering every few songs; it's the norm, even on iPods. Selecting or forwarding through songs or browsing the music library is mostly instantaneous. Photo thumbnails can take a second to load, but again, browsing through photos is quick and painless. Data transfers to the USB 2.0-enabled Nano are swift, at about 5.3MB per second. In general, the sync relationship with iTunes on both the Mac and Windows side has been flawless; our experience with Windows hasn't always been good, but so far, our Nano-iTunes pairing is seamless.

As far as sound is concerned, the Nano gets loud but not overly so when using the included earbuds. The overall sound quality is excellent, without a doubt. On an average, the battery life is for 12 hours.

Find the abbreviations of the following:

- Figure
- Approximately
- Hours
- Minutes
- Seconds

WRITING

You have just read about the qualities of Apple iPod Nano. Now describe any electronic gadget that you own. You must tell us the following:
- What are the essential qualities of that equipment (physical make-up, inside mechanisms, etc)
- What is/are the special features that set it apart from others
- Any weaknesses of this equipment

Let Us Discuss

- Have you heard of iPhone? How different is it from your iPod and mobile phone?
- Find out more about the salient features of iPhone. Compare it with a regular iPod and mobile phone. Make notes as shown here and share them with your class.

iPhone	iPod	Mobile phone
Phone Navigation External buttons Bluetooth Camera iPod SMS/MMS Any other feature		

- Use comparative adjectives as you learnt in the earlier chapter, and write down five sentences describing the above three gadgets.

The iPhone is here!

Most reviews of iPhone are unanimous about its one feature: it is a marvellous iPod. Once a user works around with the easiest-to-use, best-looking player interface currently available, your old iPod will seem like a quaint relic from a time when people expected less from their gadgets. This is the best portable multimedia player we've seen—although, with relatively low capacities of 4GB or 8GB of non-upgradeable flash memory.

The seamless integration of the Internet, iPod, Maps, Phone, and email functions is also a fact. The iPhone is intuitive, interconnected, and impossible to get lost in—all one needs to do is to just hit the home button to get to the main screen.

The iPod portion of the iPhone is what separates it from any other phone. Although some phones may play mp3s, but it probably doesn't play the ones you bought from the iTunes store or give you your iTunes playlists. Apple has completely redesigned the iPod interface on the iPhone. The users can customise the screen buttons to the areas that they access most. One can watch the films, music videos and video podcasts. Music does actually play through the built-in speaker if the user does not use the supplied earbuds/phone headset. The coverflow feature is impressive too. What most users miss here is a bigger storage space, particularly considering how big video files and films are.

VOCABULARY

Collocation

Collocation is the way in which particular words occur. For example, we can say:

The project is economically not viable.

This sentence can also be rewritten as:

The scheme/plan is financially not feasible/workable.

However, you cannot say:

'The house/shopping centre is not viable.' Although you may say, 'The project to build a housing colony is not viable.'

What we are trying to tell you here is that there are only some ways in which certain words come together with other words. Words cannot be combined arbitrarily and according to our wish. This is an important rule to observe while communication in English language. Look for instance at the following pairs and see how well they collocate or combine together:

- A fine choice
- A great opportunity
- A firm decision
- A slow student
- A terrible disaster

For more information on collocation, visit the following websites:

- http://elc.polyu.edu.hk/advdicts/collocation.htm
- http://www.teachingenglish.org.uk/think/vocabulary/collocation1.shtml

Exercise 1 Find out words which can be used with the following:
  (i) Price
  (ii) Interactive
  (iii) Safety
  (iv) Political
  (v) Natural

Exercise 2 Match the words in column A with those in column B:

A	B
(i) Disappointed	(a) great
(ii) Time	(b) exemplary
(iii) Personal	(c) severely
(iv) Courage	(d) variety
(v) Culinary	(e) issues

Exercise 3 Say whether the following italicised expressions collocate or not:
  (i) There is an *increasing range* of choices around us.
  (ii) He knows that if this *business model tears*, he'll be in trouble.
  (iii) She is *a classic example* of beauty with brains.
  (iv) *A terrible opportunity* has come his way.
  (v) In Kerala, ayurveda *reigns best*.

SPEAKING: ROLE PLAY

Giving Instructions

Annie and Renu are roommates in a hostel. Annie has recently bought a mobile phone, and like most people is not very comfortable reading an instruction manual. Still she wants to know the details about making and receiving calls. She asks for Renu's help:

Renu : Alright, so if you want to make an outstation call, just add a zero before the number you are calling.

Annie : Fine, so if my sister's number is 98400 23134, I dial 098400 23134, is that so?

Renu : You got it.

Annie : And what do I do if I want to call a landline?

Renu : Well, for that you need to enter the STD code before the number you want to call.

Annie : Like any regular call?

Renu : Sure, so if you want to call your family in Delhi…now what's the STD code for Delhi?

Annie : It's 011.

Renu : OK, then enter 011 and your landline number, as easy as that.

Annie : And what about making an international call? Do I repeat the same procedure, that is, dial the ISD code before the number I want to call?

Renu : Exactly. But don't forget 00, which is the International access code, followed by the ISD of the country you are trying to call.

Annie : I understand. Just one last thing... how to reach for an emergency number? You know, for calling fire brigade or police?

Renu : Oh yes, that's very important. All you have to do for that is to just directly without any STD code.

Annie : Thanks a lot Renu, you have really been very helpful.

Exercise 4   **Writing an email**
Imagine that your younger brother/sister has received an iPod as a gift from a relative. Write an email giving instructions on how to access music.

For Your Notebook

- What do you understand by the term smart home? What can possibly be the salient features of a smart home?
- Make a list of all items that begin with smart. Work in pairs, and share your list with the rest of the class.

Pre Reading Activity

Reading 2

Smart Homes

In a smart home, the use of computer controls allows the home to be operated in a variety of ways. Some of these will be more appropriate to some people than others. You are given here a number of examples of the way the home can operate. The majority of commands in current homes are passed on to the device in question through the use of a physically operated switch. Generally pressing a switch or turning a dial directly alters the supply of electricity to a device. The switch or knob opens or closes an electrical connection or varies the resistance of that connection. The lights in the circuit are linked into a separate switch that is able to interrupt the flow of electricity to the light fittings.

In the smart home the switch takes on a different function. Rather than regulating the flow of electricity, the switch merely sends a signal to a communication network, called a bus system, informing the network of the new position of the switch. A controller fitted to a single light fitting, or a number of light fittings, receives this signal, recognises that the message is intended for it and responds, in this example by turning on the light. The regulation of electrical flow takes place at the controller rather than at the switch.

Telephone Control

The security alarm panel fitted in the hall also operates as an answering machine and can be used to dial into the house and tell it to do certain things. This system relies on a PIN number, similar to the one used at a cash point, to ensure that only you can control the house in this way. It has a series of voice prompts that will guide you through the operation of the house.

- If you are coming home late one evening, you can call the house and get it to close the curtains as it gets dark.

This system can also be used to call you at work or on a mobile phone, if somebody rings the doorbell when you are not in the house.

- Friends can speak to you and find out when you will be back so they can arrange to visit again.

Integrated Security

The home security system can be enhanced because the security alarm is able to communicate with other devices in the home.

- When leaving the house, a single signal from a key fob, similar to those used for car alarms, can turn on the security alarm, close any open windows, and make sure all the doors are locked.
- When coming home, the same key fob can turn off the security alarm, open the front (or back) door, and switch on the hallway light.
- If you are away from home for a few days, the security alarm can tell the curtains to open or close in the morning and evening and also turn some of the lights on and off during the night to make it look as if the house is still occupied.

Safety Systems

- If there is a gas leak, or if a ring on the cooker blows out, detectors in the house will identify this and turn the gas off at the mains. The house will sound an alarm to warn you of this and also disconnect the light switches, so that they cannot be used accidentally and cause a spark.

- In case of fire, the smoke and heat detectors in each room will activate the fire alarm. The system can then call the fire brigade or a care centre, flash all the lights in the house and sound a siren, turn lights on, if it is dark, to guide you.

Independent Living

Integrating the control of the house with some additional devices can make it easier for some people to live independently at home.

- To assist people who need to use a wheelchair, the house can be equipped with motors to raise and lower cupboards and sinks. For example, if you wanted to make a hot drink the remote control in the lounge could be used to lower the wall cupboard or sink so that they were in the most suitable position when you came into the kitchen. When you finish, they could move back into their normal position, which may be more suitable for other people in the house.
- If you regularly get up in the night, the house can use its motion detectors to identify this and gently turn on the lights in the bedroom for you, minimising the risk of you tripping and falling.

Aspects of Routine Daily Life and Chores can be Controlled

Smart homes have a way of controlling our daily lives. For instance, when we wake up in the morning, we can push a control by the bed that turns the bedroom light and television on, starts the shower or bath running, opens the downstairs curtains and switches on the kettle. Again, when sitting down in the evening to watch television, a single button on the remote control can turn the set on, draw the curtains and dim the lights.

Sounds exciting, doesn't it? So come and book your smart home today!

NOMINALISATION

Look at this sentence, 'The regulation of electrical flow takes place at the controller rather than at the switch.' This can also be written as 'Electric flow is regulated at the controller rather than at the switch.' In the English language, nominalisation refers to the use of a verb or an adjective as a noun, so that the word can act as the head of a noun phrase. Nominalised sentences may be grammatically and factually correct, but vague. In technical writing, it always preferable to make the verbs work more than nouns.

Here are a few examples of nominalisation:

- Gave a suggestion   Suggested
- Sent a report   Reported
- Gave an analysis   Analysed
- Caused an increase in   Increased
- Provided a solution for   Solved

Exercise 5   Use the appropriate form of verbs of the nouns given in the following sentences:
1. (a) On reading the letter, the realisation dawned upon him that he has been betrayed.
   (b) On reading the letter, he _____ that he has been betrayed.
2. (a) There is a need for more revision of the document.
   (b) The document needs to be _____

3. (a) After the publication of the report, the truth will be known to all.
   (b) The truth will be known to all, after the report is _____.
4. (a) You cannot dismiss him on mere suspicion.
   (b) You cannot dismiss him, merely because you _____ him.
5. (a) There is a need for further investigation in this matter.
   (b) The matter needs to be further _____

VOCABULARY

Exercise 6

1. Choose the odd word out from the group of words given below:
   (i) Rather, very, much, running
   (ii) Answering machine, PIN number, security alarm, dim the lights
   (iii) Operate, function, control, regularly
   (iv) Get up, turn on, switch off, push

Exercise 7

2. Find the antonyms of the words given below. The answers are present in the text:
   (i) Disintegrated
   (ii) Maximising
   (iii) Unequipped
   (iv) Uninterrupted
   (v) Connect

Exercise 8

3. Fill in the blanks with the correct form of phrasal verbs:
   (i) After _____ (wake up) in the morning, she goes for jogging.
   (ii) Don't leave the office without _____ (turn off) all the lights.
   (iii) As soon as he _____ (get up) from the bed this morning, he felt a terrible pain in chest.
   (iv) Now that the rehearsals are over, please _____ (move back) all the furniture.
   (v) Every generation _____ (pass on) its qualities to the succeeding generation.

DISCUSSION: GROUP WORK

You have just read brief information on smart homes. Do you think it would be a good idea to live in a house like this? Or do you think technology is interfering too much in our lives? Discuss your point of view and justify your position.

GRAMMAR POINT

Sentences beginning with 'if' or conditional sentences:

Look at this sentence, "If you are coming home late home one evening, you can call the house and get it to close the curtains as it gets dark." Here is an example of 'if' type sentence which is also called a conditional.

There are three kinds of conditions in the English language which you must know about; these are: open, rejected and imaginary conditions. Let us try to understand each of them:

1. Open condition: This is a condition which may or may not be fulfilled, for example:
    (i) If it rains, the playground will be wet.
    (ii) If I turn the key, the door will be locked.
    (iii) If you come late, you will be late.
2. Rejected condition: By this we mean a condition which might have been fulfilled but it is not, for example:
    (i) If I weren't so busy, I would have finished this work long ago (but I was busy and couldn't finish the work).
    (ii) If he had taken care of himself, he wouldn't have fallen ill (but he didn't take care of himself and has fallen ill).
    (iii) If he had practiced more, he would have stood first in the race (but he didn't practice much and did not stand first).
3. Imaginary condition: This means a condition which can be imagined but cannot be true, for example:
    (i) If I were a millionaire, I would be doing plenty of charitable work.
    (ii) If he were the governor, he would live in the Raj Bhavan.

Exercise 9

A	B
(i) If you drank polluted water	(a) you would be very famous.
(ii) If you were a cricket star	(b) I would travel round the world.
(iii) If I had lots of money	(c) you would fall very sick.
(iv) If she had taken a flight	(d) you wouldn't have lost them.
(v) If you had taken care of your things	(e) she would have arrived today.

Exercise 10 Fill in the blanks with the correct form of verbs given in brackets:
   (i) If you had left early, you _____ (reach) home by now.
   (ii) If you _____ (commit) a sin, you must repent for it.
   (iii) If he _____ (steal) the money, he would have got arrested today.
   (iv) If he _____ (be) more careful, he would not have got into this trouble.
   (v) If he _____ (hear) of this news, he would have been shocked.

TECHNOLOGY AND WRITING

Find synonyms for the following technical verbs. Compare your answers with your partner:

Equalise   Occupy   Extinguish   Facilitate   Galvanise   Invert   Locate   Place

WRITING

Write a short company profile using the following information about the 2002-03 performance of Aceter, Inc., a South-India based IT distribution major. You may write two-three paragraphs.

Highlights

- Showed 19% growth in a tough, year, bouncing back from a weak 0.4% growth in 2001-02.
- Broad-based product portfolio. Exclusive tieup with HP for consumer desktops tech support.
- Tieup with Singapore's PCS for verification of components.

Strengths

- A good distribution model that helps in managing multiple brands
- Very experienced management team
- Benefits of CRM and ERP implementation over the last two years are just beginning to trickle in.

Weaknesses

- Unable to penetrate eastern region in a big way
- Needs better branding

Writing the Way You Speak?

Normally, we are told to write the way we speak in our daily lives. However, when it comes to technical/formal writing there are certain words and phrases which simply cannot be used.

The following is a list of some of the everyday expressions which can **NOT** be included in formal writing:

Like	:	I was, like, so surprised to see the gas-jar upside down…
I mean	:	The light, I mean, is then switched on…
You know/you see	:	The answer, you know, can be given.
Right	:	The metal burns producing clouds of white fumes, right?
Got it	:	The circuit is completed, got it?
Pretty much	:	Benzene is pretty much more complicated than methane.
Cool	:	That was a cool experiment.

SPELLINGS

Exercise 11   Correct the spellings of the following words:
Weidth:
Hieght:
Weighth:
Depbth:
Lenth:

Exercise 12

Supply the appropriate beginning for each of the following paragraphs. The jumbled responses at the end of the paragraphs; all you have to do is to number them correctly:

The age of *Knowledge Economy* is here to stay!

Introduction

A knowledge economy is either economy of knowledge focused on the economy of the producing and management of knowledge, or a **knowledge-based economy**. In the second meaning, more frequently used, it is a phrase that refers to the use of knowledge to produce economic benefits. The phrase was popularised by Peter Drucker as the heading to Chapter 12 in his book *The Age of Discontinuity.*

(i) _____

But the rules and practices that determined success in the industrial economy of the 20th century need rewriting in an interconnected world where resources such as know-how are more critical than other economic resources. These rules need to be rewritten at the levels of firms and industries in terms of knowledge management and at the level of public policy as knowledge policy or knowledge-related policy.

(ii) _____ In other words, this means that business must be in a constant process of change and adaptation to the new economic realities. In this new economy, it is evident that the key to success is "knowledge". For governments they are going to have to invest in, and develop, knowledge workers. This is going to mean that government budgets must allocate funds for skills development and education.

(iii) _____

Globalisation has been spurred on by the Internet, which operates round the clock. This has meant that ideas and innovation can be occurring around the clock. In this new environment, it will be important for government to development mechanisms to encourage the private sector, and public sector research organisations, to be innovative and able to deploy knowledge. It must be noted that more and more individuals and companies are engaged in businesses that are connected to the Internet. But this is not just about the Internet, or e-commerce for that matter. The knowledge economy is about how the new technologies have transformed the way we think and act, and the ways in which we use the Internet and ICTs which are transforming our world economies.

(iv) _____

The digital divide, economies of scale, trans-global organisations dominating the world markets, powerful economic engines of a few rich countries, and other concerns, can leave the impression that the gap in the world between the rich and the poor will widen over time. There is an argument to be made that the gap will widen over time if developed countries and international organisations do not move faster to narrow the gaps and bring in policies that will benefit all the peoples of the world. The evolving, powerful new technological tools, and the Internet, are media that can be harnessed to benefit developing

countries. But this cannot happen in a vacuum. To succeed in the knowledge economy there are certain very basic policies that are needed. The first is to create a cultural change within the institutions of the country.

(v) _____

Obviously, individual countries are the ones best suited to change their own culture. But, the lesson is the same, for any country to transform itself into a viable, knowledge-based economy, internal, institutional change will be crucial. It is here that governments can play crucial roles in developing strategies.

   A vital tool that a government needs is wide access to both the Internet and Information and Communication Technologies (ICTs). Thus, to achieve this, connectivity programs, funded by government, are necessary. There is a need to ensure that the current and next generations become computer literate or are in a position to benefit from the changes technology is bringing. To thrive in the global knowledge economy, it is going to be important to change the whole educational system to ensure a wide base of knowledge workers who understand and use these information technologies. Thus, education is a key, in order to ensure the skills for the knowledge economy exist in abundance, and skilled workers are the lifelines of any knowledge economy.

(vi) _____ There need to be programs to fund businesses to get them online. This is an important lesson many of the developed countries have had to learn. Getting businesses online is not just ensuring wide access to the Internet. It also requires extensive educational programs so business leaders understand the opportunities and benefits of having an online presence. This is important so that they can take advantage of the world as a potential customer. Equally crucial is that business be able to thrive in a competitive environment, and can compete, not only within their own country, but in the wider global economy. Diversity is a key characteristic of the knowledge economy. It is important that there be intellectual property laws, to protect businesses and innovators. However, the laws themselves must be flexible to ensure that monopolies do not develop. It is important that there be innovation, creativity and diversity in the emerging knowledge economy.

Number the following responses correctly:

- A crucial aspect of the challenge lies in allowing wide access to the resources that exist through the Internet and other ICTs, and ensuring that there are sufficient opportunities for businesses to be online. This is a step beyond providing the education of citizens to create opportunities.
- Yet, despite these glowing accolades about the benefits of the transformed world economies, there are the deeper issues as to whether or not many of the developing nations can also benefit, as well as the less well off in the developed countries.
- In the changed global scenario two of the most important commodities of a nation are becoming information and knowledge.

- Many countries see globalisation as a threat to their centuries old cultures, whereas to many in the world, globalisation benefits the rich and powerful nations and is perceived as another form of colonialisation.
- An aspect of knowledge that has been largely forgotten in knowledge economy thinking is wisdom, which includes questions of judgement, ethics, experience and intuition, all of which are necessary for the best application of knowledge.
- Various observers describe today's global economy as one in transition to a "knowledge economy", or an "information society"

CORRECTING ERRORS IN WRITTEN SAMPLES

You are given below three examples from actual writings of students like you. Read them carefully and underline the errors present in them. Check your answers with explanations given below:

(i) My most entertainment moment is spending the time in watching the television. Mostly I watch sports channels like Star Sports and ESPN most. In these channels we can watch all types of sports like cricket, football, tennis, badminton etc. These sports are so much entertaining that sometimes I forget the time and think that the whole day is being spent in an hour. And the other channels I watch are HBO, AXN and Discovery. In Discovery, I watch "Discovery Kids" in the morning. In this I listen to the lectures of great proffessors on different subjects which is interesting. More often I spend time in listening to the music. I listen to classical music and the hit film songs. I also have the collection of songs which according to me are the best songs.

Explanation

- Inappropriate word-choice: 'My most entertainment moment is spending the time in watching the television.'
- Irrelevant repetition: 'Mostly I watch sports channels like Star Sports and ESPN most.'
- Run-on sentence: 'These sports are so much entertaining that sometimes I forget the time and think that the whole day is being spent in an hour.'
- Absence of a concrete subject: 'In this I listen to the lectures of...'
- Misspelled words: 'proffessors'
- Inappropriate use of comparative: 'More often I spend time in listening to the music.'

(ii) According to me fashion is something which is rolled to look different & to create a new style. It reflects one's personality.

Now, I would like to mention one thing. Once, I unknowingly switched on to *fashion TV*. Then I thought of watching latest fashion trends. I didn't see any fashion in that except shedding of clothes by models. I didn't see any dress which is suitable to wear in our daily life.

Among film stars, I like Shahrukh Khan's fashions & decency. (In my opinion the way he dresses). I like the way he acts in emotional & comedy scenes. My role models in cricket are Rahul & Laxman. Many say that they have less strike rate and they can't hit the ball well in final overs. But I can say that they are the one who play clean and perfect shots.

Explanation

- Inappropriate word: 'something which is rolled to look different'
- Abbreviation: &
- Lack of cohesion: It reflects one's personality.
- Faulty paragraphing: Too many paragraphs
- Lack of coherence: Once, I unknowingly switched on to fashion TV. Then I thought of watching latest fashion trends.
- Lack of cohesion: I didn't see any fashion in that except shedding of clothes by models. I didn't see any dress which is suitable to wear in our daily life.
- Inappropriate words: Shahrukh Khan's fashions & decency.
- Irrelevant sentence: (In my opinion the way he dresses).
- Irrelevant sentences: 'My role models…shots.'

(iii) My favourite idol of entertainment is a star world TV channel documentary named Mr. Bean. I really love the show and miss it seldom. The idea of that hour documentary is that Mr. Bean tries to do daily duties in an apt & appropriate manner, but turns out to be very funny & entertaining. The way he walks, his actions, body language, his conversation with other people etc. make viewers laugh. The show is really worth watching for a wholesome entertainment. The documentary has been a successful entertainer to many audiences since decades. People of all ages do watch this show.

Explanation

- Inappropriate words: 'idol', 'documentary'
- Inversion: 'and miss it seldom.'
- Missing word: 'The idea of that hour documentary…'
- Inappropriate words: 'daily duties', 'idea of ...'
- Fragmentary sentence: 'The way he walks, his actions, body language, his conversation with other people etc. make viewers laugh.'
- Article: 'a wholesome entertainment.'
- Preposition: The documentary has been a successful entertainer to many audiences since decades.
- Auxiliaries: People of all ages do watch this show.
- Vague: 'many audiences...'

USING TECHNOLOGY FOR WRITING

While writing electronically….
- Use spell-checkers and grammar-checkers
- Use the correct and appropriate version of English (for example, British English, American English, etc.)
- Use a thesaurus to make your vocabulary richer and more interesting.
- Use a highlighter in your text, whenever necessary.

Avoiding Clichés

A cliché is an expression which, at some point of time, was used to add colour to the language. However, with the passage of time, and with overuse of the term, it becomes stale and loses its freshness so much that it ends up making one's writing appear silly and annoying. Here are some worn-out clichés which should be used carefully:

- Add insult to injury
- Better late than never
- Calm before the storm
- Cut a long story short
- Easier said than done
- Head over heels in love
- Kick the bucket
- Last but not least
- Pretty as a picture
- Ripe old age
- Sadder but wiser
- Sigh of relief
- Spread like wildfire
- Tried and tested
- Worth its weight in gold

ESSAY WRITING

An essay is a long piece of composition on a given topic, with several relevant and coherent paragraphs. Every essay has an three essential parts:

(i) an introduction
(ii) a body
(iii) a conclusion

Types of Essay

In your academic career, you will be required to write several types of essays. It is important to know something about each kind.

Here are some types of essay:

 (i) **Expository**: The essay explains something, and generally answers the questions *why* and *how*. It needs facts and logical sequencing. The subject may be things, processes, ideas or people.
 (ii) **Descriptive:** Description takes things which have been seen, heard, read or experienced and transfers them into words.
(iii) **Narrative:** The purpose of narration is to tell the reader what happened. Narration requires an order of time. The happenings must be given in the order in which they occurred. The writer cannot narrate everything but only those details which are relevant to their purpose.

(iv) **Argumentative**: The purpose of this type of essay is to prove or disprove something. It is common to give arguments for and against the opinion, and then to demonstrate why one of these sets of arguments is not acceptable.

Read the following essay on Dr Devi Shetty, a leading cardiac surgeon from India.
What type of an essay is it?

Reading 3

Dr Devi Shetty: A Profile

Like most achievers, Shetty has had a humble beginning. Born in Mangalore, he was the eighth child in a family of nine children. He was educated and trained in general surgery at the Kasturba Medical College, Mangalore in 1982. He attained basic training in cardiac surgery at the West Midlands Cardiothoracic Rotation Programme. This was followed by his appointment at the Guy's Hospital London (cardiothoracic unit) between 1983 and 1989. In 1989 Shetty and his team set up a 140-bed hospital, Research Institute, in Kolkata.

It was in Kolkata that he hit big time and began making the country sit up and take notice of his work. He also has the distinction of being Mother Teresa's doctor and treated her every time when she fell sick, especially before she breathed her last. But he was never the one to rest on his laurels.

In 1997 he and his team set up the Manipal Heart Foundation—a 450-bed heart operation facility. A recent addition to his list of accomplishments is the Rabindranath Tagore International Institute of Cardiac Sciences, a full-fledged cardiac hospital built on 5 acres of land in Kolkata.

This was followed by his flagship establishment at Bangalore, the Narayana Hrudayalaya, a world-renowned facility for heart treatment. In fact, patients from neighbouring countries and even developed countries come to the facility for his expert treatment. Dr Shetty had made national headlines a few years ago when he operated on a Pakistani child free of charge. What is noteworthy about Dr Shetty's hospital is the fact that it charges a flat fee of less than Rs. 70,000 for heart bypass, which is less than 50 times of what a hospital in US would charge any patient. The package pricing system devised by him has made heart surgery affordable to the common man. He is also responsible for introducing the concept of assembly-line heart surgery, which aims at reducing the cost of surgery and achieving zero mortality.

His list of achievements is incredible to say the least. He is the first heart surgeon in India to venture into neonatal open-heart surgery. He performed the first open-heart surgery in the world to close a hole in the heart with the help of a microchip camera. He used an artificial heart for the first time in India and performed the first surgery in India using the blood vessels of the stomach to bypass the blocked arteries of the heart. His greatest achievement, however, has been his work with children. He operates free for kids below 12, and of his 13,000 operations in a career spanning 16 years, over 5,000 operations were on children. For him, compassion is the biggest thing in life. He has gone on record many times to say that, "If I am given a choice I would like to treat only poor patients. But unfortunately the economic reality does not allow me to do that."

Obviously, his personal mission is glaringly clear—to make cardiac surgery affordable by creating a chain of heart hospitals in every state in India to serve the working class. He once said, "The problem of health care is that it is linked to affluence. Unfortunately, pain is not negotiable. Health care is reaching out to a very small fraction of the people of this planet. We need to look at a different model for health care delivery keeping in mind the affordability of the common man."

He launched India's first telemedicine programme in collaboration with ISRO in the northeastern states and the revolutionary Yeshasvini Health Scheme in association with the Karnataka government that enables farmers and their families to get treatment for a variety of ailments by registering and paying just Rs 5 per month. With this, Narayana Hrudayalaya is the biggest tele-medicine centre in the world, catering to some 19 countries, and exporting its expertise to wherever it is required. The hospital has made full use of Bangalore's biggest asset, IT, in making heart treatment reachable and technologically viable.

Dr Shetty's dream is to see India as the world's largest mass health-care provider. And according to him, technology can be used to an optimum in realising this ambition. " Every man, woman and child, " he says, "will carry a smart card, which will give each of them access to high technology health care with dignity. India will dissociate healthcare from affluence, just like what has happened with mobile communication. India may not become the richest nation in the world, but it will definitely become the happiest nation in the world."

> **Useful websites on writing essays**
> - http://members.tripod.com/~lklivingston/essay/
> - http://www.english.bham.ac.uk/staff/tom/teaching/howto/essay
> - http://www.jcu.edu.au/studying/services/studyskills/essay/
> - http://www.monash.edu.au/lls/llonline/writing/general/essay/index.xml

Characteristics of a Good Essay

Characteristics	Examples from the given essay
Unity	The unity of this descriptive essay would have been spoilt if the writer had discussed several diseases and several kind of doctors.
Coherence This means that there should be a logical sequence of thought, and suitable devices used to link the parts of the sequence together. This requires logical relationships between: (i) each paragraph and the ones preceding and following it. (ii) each sentence and the ones preceding and following it. (iii) ideas or sentences in various parts of the essay.	The sentences and paragraphs follow a very logical sequence in this essay. Can you think of some examples? (i) _____ (ii) _____ (iii) _____
Relevance This means that there should be no information which is not important for the subject of the essay.	There is no irrelevant information in this essay.
Proportion Remember, a writer has only limited time to write an essay. It is necessary that all the paragraphs should have a sense of balance about them. This means that the paragraphs should deal with a variety of topics, and where necessary space is given to all topics according to their order of importance.	This essay has the right sense of balance.

A *matured* personality?

Very often we come across an expression like the above. It is common to hear, 'she is very matured' or 'it's a matured decision'.

Matured is a past tense of mature, and cannot be used randomly as an adjective. It is appropriate to say, 'she is very mature' or a 'very mature child', indicating that the wisdom of the people in discussion is beyond their years.

We can, however, say 'the shares have matured', 'the investments have matured', etc.

Exercise

From the above example, you have learnt how to write a profile of an eminent personality. Now using a similar format, write an essay in about 200 words on a celebrity who has made a name for themselves in the field of science and technology.

Let us Revise
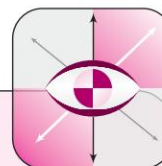
Here is a letter from Dr. Devi Shetty. Fill in the blanks using words given in the box below:

> experience   recurrent   Small   spare   incident
> underwent   in charge   relieve   performed

As a heart surgeon I have _____ (i) more than 4000 operations on children like you suffering from heart disease. Most of them came from poor families. Despite their backgrounds, I treat all for free. I think this is the best way I can repay God who has given me everything I wanted, a good family, a wonderful wife and loving children. For me this world is such a happy place to live in and in my own _____ (ii) way I strive hard to make it happy for others

You must be wondering what inspired me to take this path. I guess, I became a doctor because of the _____ (iii) illness of my parents. My childhood was spent with the fear of losing my mother. My father who was a diabetic had multiple episodes of diabetic coma. In the life of the nine of us God was a distant image and his clear image was that of doctor who could save the lives of our parents.

Another childhood _____ (iv) left a lasting impression on my young mind. My mother was speaking to a distant relative of ours in Bombay. This lady was telling my mother about a particular surgeon who apart from saving her child's life also offered his service completely free of cost. I could hear my mother blessing the mother of that surgeon for giving birth to such a wonderful person and ended up saying that this world is still a wonderful place because of people like him.

That was the time I found the purpose to my life, the purpose of bringing happiness to all the children of this world. I was lucky to be in the right place at the right time. I was trained to be a heart surgeon at Guy's Hospital, London. My colleagues there called me an "operating machine" since I loved heart surgery.

I left England in 1989 to start a state-of-the-art heart hospital called BM Birla Heart Research Centre at Calcutta. It was a great _____ (v) to set up a heart hospital, which soon became one of the best heart hospitals in India. And almost immediately after we set up the research centre we started the pediatric cardiac surgical facilities to take care of children suffering from heart diseases. My mother at that time was living in a small town near Mangalore. It was my father's death anniversary and she spent almost the entire day in the prayer room. In the evening, my sister who was watching the news, all of a sudden screamed out for my mother. My mother hurried to the living room to see her son on TV with a nine day old baby who _____ (vi) a successful open-heart surgery. He was the youngest baby at that point of time in India to undergo a successful open-heart surgery. It was the

beginning of heart surgery on newborn babies in India. I guess at that time many mothers too would have prayed for my mother's well being.

   Let me tell you about another incident. Do you know the definition of a paediatric cardiac surgeon? The dictionary says he is a surgeon who specialises in the treatment of heart ailments in children. A few years ago, when Mother Teresa suffered a heart attack I was put _____ (vii) of her heart care. One day, Mother, who at that point of time was convalescing in the intensive care unit of the hospital, saw me examining a blue baby. After few minutes of thought she turned towards me and said; "Now I know why you are here. To _____ (viii) the agony of children with heart disease, God sent you to this world to fix it". To my mind, this is the best definition ever given of a paediatric cardiac surgeon and perhaps the best compliment that I have ever received.

   One day you will become an adult and probably a very important member of our society. You will have lot of responsibilities and commitments. All I ask you for is, can you _____ (ix) few moments of your precious time every day for someone who needs it? And that too without expecting anything back in return?

Source: http://www.anna.wso.net/dr_devi_prasad_shetty.htm

Answer Key
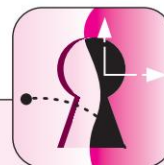
Exercise 2
  (i) (c)   (ii) (a)   (iii) (e)   (iv) (b)   (v) (d)

Exercise 3
  (i) yes   (ii) no   (iii) yes   (iv) no;   (v) no

Exercise 5
  1. realised   2. revised   3. published
  4. suspect   5 investigated

Exercise 6
  (i) running   (ii) dim the lights   (iii) regularly
  (iv) push

Exercise 7
  (i) integrated   (ii) minimising   (iii) equipped
  (iv) interrupted   (v) disconnect

Exercise 8
  (i) waking up   (ii) turning off   (iii) get up
  (iv) move back   (v) passes on

Exercise 9
  (i) (c)   (ii) (a)   (iii) (b)   (iv) (e)   (v) (d)

Exercise 10
  (i) would have reached   (ii) commit'   (iii) had stolen
  (iv) had been   (v) had heard

Exercise 12
  (i) Various observers describe today's global economy as one in transition to a "knowledge economy", or an "information society".

(ii) An aspect of knowledge that has been largely forgotten in knowledge economy thinking is wisdom, which includes questions of judgement, ethics, experience and intuition, all of which are necessary for the best application of knowledge.

   (a) In the changed global scenario two of the most important commodities of a nation are becoming information and knowledge.

   (b) Yet, despite these glowing accolades about the benefits of the transformed world economies, there are the deeper issues as to whether or not many of the developing nations can also benefit, as well as the less well off in the developed countries.

   (c) Many countries see globalisation as a threat to their centuries old cultures, whereas to many in the world, globalisation benefits the rich and powerful nations and is perceived as another form of colonialisation.

   (d) A crucial aspect of the challenge lies in allowing wide access to the resources that exist through the Internet and other ICTs, and ensuring that there are sufficient opportunities for businesses to be online. This is a step beyond providing the education of citizens to create opportunities

Let us revise

(i) performed	(ii) small	(iii) recurrent
(iv) incident	(v) experience	(vi) underwent
(vii) in charge	(viii) relieve	(ix) spare
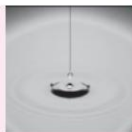
CHAPTER 11

Minding Your Business with Effective Business Communication

CHAPTER OUTLINE

In this chapter you will learn about

- Business letters: calling for quotations, placing orders, responding to orders, letters of complaint
- Letters to newspapers
- E-mails
- Writing a curriculum vitae

Pre Reading Activity

Let Us Discuss

- Have you ever shopped through internet? Describe the experience.
- Look at the flow chart given below. Explain its salient features.

```
                    commerce
                   /        \
           e-commerce      Physical
                           commerce
                |
            Internet
            commerce
           /        \
    Business      Consumer
    e-commerce    e-commerce
```
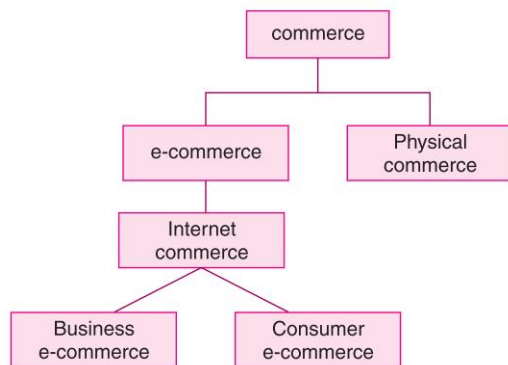
Read the following passage and answer the questions given below:

Reading 1

What is e-commerce?

Commerce can be divided into two types, namely, physical or traditional commerce and electronic or e-commerce.

E-commerce is technology used for sale and purchase of goods or services by electronic means over the internet.

E-commerce is completely different and more efficient than traditional commerce. In traditional commerce all transactions used to take place *via* contact between humans, for example, if you want to buy a book you will go to a book store and buy it. But in e-commerce all these can be done via electronic means. Here you will access a cyber book store and get a copy of the required book.

Characteristics of e-commerce

- Information exchange between two parties or flow of goods and services and transmissions of electronic order can be made between individuals or different organisations.
- Transactions like ATMs, electronic data interchange, electronic banking can be done by e-commerce.
- E-commerce permits both intra and inter-organisational activities.

The general e-commerce transactions can be represented with a three-tier model as shown below:

Client side	⟷	Server system	⟷	Backend system
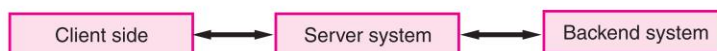
How is e-commerce different from Traditional Commerce?

- The store is always open: This web based stores are expected to be open seven days a weak, 24 hours a day and 365 days a year. The customer can do his transactions at any time i.e. 24×7. While in the case of traditional commerce the transaction time is restricted.
- A technology based customer interface: This gives a **"Screen to face"** interactions. The customer need not have to be there at the providing centre. The time required to do transactions is very less.
- Cost-effective: As customers are using e-commerce the cost required for transaction is becoming less compared to traditional transactions.

In conclusion we may say, the use of internet is increasing rapidly and more and more people are getting accustomed to this concept.

Exercise 1 Vocabulary for e-commerce
Here are some useful words for e-commerce. Match their meanings:

(i)	E-commerce	(a)	where you put your goods before you purchase them
(ii)	Unique users	(b)	e-retailing
(iii)	Brick and mortar	(c)	different individual users
(iv)	Clicks-and-mortar	(d)	traditional shops
(v)	Shopping cart	(e)	offering a price through auction
(vi)	Bids	(f)	business through internet
(vii)	Last-mile problem	(g)	how many times a web page is viewed
(viii)	Hits	(h)	physical delivery of goods to Internet customers

Exercise 2

DIFFERENT KINDS OF E-COMMERCE

Transfer the following information into chart:
Four distinct categories of e-commerce can be identified

- Business-to-Business (B2B)
- Business-to-Customer (B2C)
- Customer-to-Customer (C2C)
- Consumer-to- Business (C2B)

(i) Business-to-Business(B2B) Refers to e-commerce that can occur between two organisations. B2B includes purchasing and procurement, supplier management, inventory management, channel management, sales activities, payment and services and support.

(ii) Business-to-Customer (B2C) Refers to exchanges between businesses and consumers, example, yahoo.com, amazon.com. The transaction that occurs in B2B can also takes place in B2C context. This B2C service includes sales activities, consumer search, frequently asked questions and service and support.

(iii) Customer-to-Customer (C2C) Exchanges involve transactions between and among the consumers. These exchanges may or may not include third party involvement as in the case of auction-exchange eBay. Other activities are classified ads, games, jobs, web base communications and personal services.

(iv) Consumer-to-Business (C2B) Consumers can band together form and present themselves as a buyer group to businesses in a C2B relationship.

Exercise 3

BUSINESS IDIOMS

Match the idioms and expressions in column A with their meanings in column B:

A *Idiom*	B *Meaning*
(i) Wrap up	(a) Guess work based on instincts
(ii) Ballpark	(b) Finish
(iii) Guestimate	(c) Overselling the environmental benefits of a place or system
(iv) Money spinner	(d) Not to give in easily
(v) Drive a hard bargain	(e)
(vi) Greenwash	(f) Something that generates plenty of money

BUSINESS LETTERS

A business letter is more formal than a personal letter. Although there are several kinds of business letters, here we will be discussing only some of them.

A. Placing an Order

Read the following advertisement:

Scanners

Excel offers a full line of document scanners that deliver unsurpassed image quality, speed, and advanced paper handling to meet the needs of any user in a workgroup or departmental environment.

Model	Scan Speed	Scan Modes	Paper Capability
IS200e	34 ppm B/W 17 ppm Color	Duplex	8.5" × 14"
IS300e	31 ppm B/W 10 ppm Color	Duplex	11" × 17"
IS330DC	38 ppm	Duplex	11" × 17"
IS450SE	65 ppm	Simplex	11" × 17"
IS760	75 ppm	Simplex	11" × 17"
IS760D	122 ipm	Duplex	11" × 17"

(**Exercise 4**)

Placing an Order

Based on the above advertisement, write a letter to the sales manager, Excel Scanners, requesting him to send you a specific kind of scanner.

Responding to a Telephonic Order

Here is a sample letter:

M. Ramalingam
Sales Manager
Excel Scanners
34 T. Nagar
Chennai-600056
Tel: Fax:
Email: excel@yahoo.com

July 10, 2007

Benjamin Abraham
Sales Manager
ST Publishers
45 Banyan Avenue
Trivandrum

Dear Mr Abraham:

With reference to our telephonic conversation today, I am writing to confirm your order for: IS330DC 38ppm Duplex with a scanning capacity of
The order will be dispatched within three days and should arrive at your store in about 7 working days.
Please contact us again if we can help in any way.

Yours sincerely

M. Ramalingam
Sales Manager

Placing a Telephonic Order

In an increasingly fast world, business houses do not always have the time to write letters of orders. It is here that
placing an order by telephone can be of help.
While placing an order by telephone, remember to:
- Provide clear information about yourself, name, address, etc.
- Give the specifics of the product you order
- Ask for the relevant information (price of the product, delivery mode, delivery date, etc.)
- Follow up your telecon with a fax or an email.

Yours faithfully or your sincerely?
- When the recipient's name is unknown to you, you should use yours faithfully:
Dear Sir
....
Yours faithfully
- When you know the recipient's name:
Dear Mr. Pradeep
....
Yours sincerely

B. Letters Asking for Quotations

What is a Quotation?   A quotation is a written promise to supply goods on the terms stated. The potential buyer is under no compulsion to buy the goods for which a quotation is requested.

Terms related to quotations

(i) Carriage paid	The quoted price includes delivery to the buyer's premises
(ii) Carriage forward	The buyer pays the delivery charges
(iii) Loco, ex works, ex warehouse	The buyer pays all expenses of handling from the time the goods leave the factory or warehouse
(iv) Free on rail	The quotation covers the cost of transport to the nearest rail-way station and of loading on to truck.
(v) Free alongside ship	The quotation covers the expenses for using lighters or barges to bring the goods to the ship
(vi) Free on board	The quotation covers the cost of loading the goods on to the ship, after which it becomes the buyer's responsibility.
(vii) Invoice	A bill issued by one who has provided products or services to a customer.

Request for Quotations   *Read the following letter asking for quotation:*

Dear Sir

We are in an urgent need of 20 pieces of quality leather travelling bags in tan, brown and black. We require goods which will retain their appearance and condition even in rough conditions.

  Please let us have some samples and a quoatation, including delivery at our warehouse within two weeks of our order.

Yours faithfully

What are the features of the above letter? What are the major areas that require particular attention?

Here is a standard quotation form. Try to fill in as many details as you can:

From   Date prepared……

Global Techs, Inc.   Valid until……
169, M.G.Road   Quotation no.:
Bangalore
Fax:
Phone:

Prepared for: _____
                              _____
                              _____
                              _____

Item/Description	Number of units	Unit price	Amount
			Total

Terms and conditions
…………………………………
…………………………………

Prepared by……………………………………………………………………

Exercise 5   *Fill in the blanks with appropriate words given in the box below*:
guarantee   assure   attach   enquiry   delivery
confirm   requested   business

Dear Mr. Raghunathan
Thank you for your _____ (i) of today. As _____ (ii) by you, we _____ (iii) samples of different qualities of paper suitable for typing work.

These prices include _____ (iv) at your stores.

We _____ (v) you that our material is of excellent quality and suitable for all your typing purposes. It comes with our _____ (vi).

We promise delivering within one week once you _____ (vii) the order.

We look forward to doing more _____ (viii) with you in future.

The writer should consider several things when preparing to write. The following questions will help you to determine the appropriate tone for your message.

- Why am I writing this document?
- Who am I writing to and what do I want them to understand?
- What kind of tone should I use?

Why am I Writing this Document?

You should take time to consider the purpose of your document in order to determine how you should express the message you wish to convey. When you consider the message and how you wish to express it, the tone of your message will become apparent.

Tone Commandments

- Be confident and polite
- Do not get personal

> **'Tone' and Communication**
>
> 'Tone' refers to an appropriate expression of the relationship between the writer and the reader/ recipient (eg. a friend, a figure of authority, a company manager, etc.). Tone is an important element in formal writing. In letters of job application and business transactions, it is especially necessary to observe the appropriate tone.

- Avoid racist, communal, gender biases.
- Stress the benefits for the reader.
- Write at an appropriate level of complexity (not too simple or too difficult).

State whether the following expressions are appropriate or not in business communication:

(i) I hope that you will contact me … (in a cv)
(ii) Hope you are doing fine. (in a letter of job application)
(iii) I know I'm not good enough but I'll do my best (in a letter of thanks after the job interview).
(iv) At present I am earning in the range of Rs. 40,000-46,000/ month… (in a letter of job application)
(v) What a pleasure it was meeting you! (letter of thanks to the manager after a job-interview).

Presenting the Right Image—Handling Complaints/Making Suggestions

Expressions	Significance
Please hold on…	Request which suggests that the caller wait for a while since the person at the other end of the line is busy.
Please	Request for something
I'm extremely sorry…	Apologising
I wonder if I could…	Starting to make a request
Good-bye…	Taking leave of someone
Have a safe journey…	Wishing somebody who is going on a journey

Exercise 6 Look at the following sentences and fill in the blanks with the appropriate phrases given in the box:

(i) I'm afraid, I do not handle this department _____
(ii) You are right about the missing piece of luggage _____
(iii) Hotel Eleanor? _____
(iv) We are so sorry about this confusion regarding your reservation _____
(v) It appears as if there is an error in your bill _____

(a) There seem to have been a mistake at our end
(b) We shall do our best to compensate you
(c) Kindly wait for a moment, we shall sort it out
(d) That's right.May I help you?
(e) Perhaps you'd like to speak to Mr. Pratap about it.

Exercise 7

POLITENESS MARKERS

Fill in the blanks with the appropriate politeness markers. Do not repeat the phrases.

If I may say so	It's a pleasure to inform you	I'm sorry
Be my guest	I'm afraid	would you mind
would you like me	We apologise	

(i) _____ there has been a slight misunderstanding
(ii) Ladies and gentlemen _____ that we've the eminent businessman, Mr. Bill Gates amidst us.
(iii) _____, this is not the correct answer.
(iv) _____ totakeyourcoat?
(v) _____ about the mismanagement,butwecansurelymakeamends.
(vi) _____ The air-conditioner is not working here _____ moving into another room?
(vii) There can be another plan _____, which is definitely more cost-effective.
(viii) "Can I use your phone?" "Sure _____."
(ix) _____ for the inconvenience caused.

Exercise 8   *Write the complete words for the following abbreviations*:
(i) Rd._____
(ii) c/o _____
(iii) e.g._____
(iv) etc._____
(v) Ltd._____
(vi) Corp._____
(vii) Inc._____
(viii) Enc._____
(ix) P&P _____
(x) VAT _____
(xi) TM _____
(xii) i.e._____
(xiii) © _____
(xiv) @ _____

(xv) ® _____
(xvi) TQM _____

C. Letters of Complaint

- The letter should be clearly marked 'complaint' so that it reaches the right person.
- Complaints should be precise, and contain all the relevant information.
- State if you have made a complaint earlier, and what action has been taken.
- State what action you expect the company/shop to take.
- Always keep a proof of purchase ready
- Always use a firm, yet polite tone.

Compare the following letters of complaint:

a. Sir

   I am very angry as I am write to inform you that the 'Right Now' bag I bought from your shop last Saturday is completely useless. To top it, whenever I phone your shop, only a recorded voice responds, and customers would like to talk to a human being. This is no way to behave. Your service is poor, and I will never buy anything ever again from your shop. Please return my money back.

b. Dear Sir

   I am writing to complaint about the 'Right Now' handbag which I bought on Saturday, the 16th of this month, from your shop in Isphani Plaza, Nungambakkam. I regret to tell you that the stitching has already come away on one of the straps. As you can expect, it is impossible to use the bag.

   I would be grateful if you could advise me on what to do now with a view to a refund of the purchase price, which was Rs. 1800/-, or an exchange of the faulty item. I have been trying to contact you over the phone, but there has been no response.

   I am attaching here a xerox copy of the bill of purchase.
   Looking forward to your immediate response
   Yours faithfully
   (Name, address, telephone no.)

Two useful sites for getting more information on business letters are:
- http://www.4hb.com/letters/
- http://www.unc.edu/depts/wcweb/handouts/business.html

Which letter reads better? Give reasons for your answer.

D. Writing a Letter to the Editor of a Newspaper

We write letters to editors of newspapers to
- Express concern over a socio-political/ economic/cultural issue
- Express our points of view on any of the above
- Challenge someone's opinion
- Respond to a published news report or letter

Look at a sample letter below:

Ban on soft drinks

Dear Sir

Railway Minister Lalu Prasad's announcement that the sale of soft drinks would be banned on trains and at stations and that indigenous products such as buttermilk would be sold instead will help cottage industry and dairies. The Railways should approach the Khadi and Village Industries Board for getting palm *gur* drinks and the cooperative dairies for buttermilk. Before banning soft drinks, it should ensure that indigenous drinks are in adequate supply.

A. Ramanathan,

Chennai

Exercise 9

(i) Can you identify the report to which the above letter is responding?

(ii) Do you support the above opinion? If yes, then write a letter to the editor expressing your agreement.

Let Us Discuss

For your Notebook

- Suggest some ways to dispose of hazardous waste. Who do you think should take responsibility for such kind of work?
- Look at the websites of two major national and international newspapers. What are the major news stories of the day? Compare their writing styles.

Read the following news report, and answer the questions based on it:

AHMEDABAD, India (Reuters) An Indian company said on Monday it would dispose of hazardous waste left over from the world's worst industrial disaster in Bhopal by burning it, sparking environmental concerns.

The firm, Bharuch Environ Infrastructure Limited (BEIL), is based in Gujarat and is a joint venture of hundreds of companies in the region.

"Disposing the controversial Union Carbide waste is child's play for us," said BEIL chairman Ashok Punjwani in Ahmedabad, Gujarat's main city.

"It will be burnt in incinerators for eight days at a very high temperature," Punjwani added, speaking at a news conference.

In Dec. 1984, tonnes of toxic gas leaked from a pesticide plant…then owned by Union Carbide—in Bhopal in Madhya Pradesh, killing nearly 3,800 people.

Since then, thousands more have died from exposure-related sicknesses, while tens of thousands of survivors remain sick.

After years of controversy about who should clear the waste at the plant, BEIL said it would undertake the job for 9 million rupees, to be paid by the Madhya Pradesh government.

About 350 tonnes of tarry waste lie in plastic sacks in the Union Carbide plant. BEIL will transport it from Bhopal to Ankleshwar, an industrial zone in Gujarat by July.

But environmentalists say the decision to move the tar-smeared waste to neighbouring Gujarat will be disastrous and are protesting against it.

They filed a petition this May in the Bhopal High Court to prevent the move but the court has yet to hear the case.

"Union Carbide created the mess so they should clear it," says Madhumita Datta, a campaigner for the rights of survivors. "Why is any Indian company touching it?"

Union Carbide is now owned by Dow Chemicals Co., but the Michigan-based firm says it never owned or operated the Bhopal plant, which it took over in 2001.

Dow has urged the Madhya Pradesh government to withdraw a clean-up suit against it, saying that no court has ever held it responsible for the disposal of waste at the Bhopal plant. In 1989, Union Carbide paid $470 million compensation to victims and said responsibility for the clean-up lay with officials. The Madhya Pradesh government took over the site in 1998.

Datta said India did not have the technology to safely dispose the waste and warned if it is burnt it would pollute the air. But the state-run Gujarat Pollution Control Board (GPCB) disagrees. "We cannot get emotional. Let's burn the waste and forget it forever," GPCB secretary Sanjiv Tyagi told Reuters.

Exercise 10
- Do you agree or disagree with the above position?
- Write a letter to the editor of a newspaper expressing your opinion.

Begin this way:
Dear Sir/Madam

Give reference to the news item
Express your position: for or against
Support your statement

Conclude

Yours faithfully
(your name, place)

Exercise 11

PHRASAL VERBS

In the above text you have come across expressions like *clean up* and *dispose of*. You know that these are examples of

(i) Let us check _____ the hotel.
(ii) I would like to check _____ the library of this college.
(iii) It is difficult to put _____ with this kind of weather.

(iv) Sunil waslaid _____ when his company downsized its staff.
(v) Please go _____ And complete your speech.
(vi) Sameera and Komal hit it _____ The moment they met.
(vii) Payal missed _____ on a chance to go for vacations.
(viii) When Pratap got the admission, at first the news did not sink _____
(ix) She has taken _____ aerobics classes.
(x) The doctor has asked Mr Tiwari to cut _____ on his work.

Exercise 12 Disposable plastic bottles are a major source of environmental pollution. Write a newspaper report about the growing menace of this phenomenon.

Exhibit 11.2

E. Writing Curriculum Vitae and Letters of Application

Letters of Job Application: Why are they so Important? Recruiting authorities receive thousands of letters from hopefuls seeking employment. Since it is impossible for them to interview all the applicants, they go by the letters, curriculum vitas, letters of references, etc. to decide whom to call for interviews.

A written communication introduces you, explains your purpose for writing, highlights a few of your experiences or skills, and requests an opportunity to meet personally with the potential employer.

Precisely because this letter is your introduction to an employer and because first impressions count, you should take great care to write an impressive and effective letter.

To use bullet points or not?

While using bullet points is well-accepted in science subjects, it is not advisable to use them in formal writing. Bullets should be used only while enumerating or making a list, such as: I would like to order:

- 50 reams of excellent quality white poster paper
- 100 reams of medium quality printing paper
- 2 kg A4 quality ordinary white paper

Remember the following features:

- Try to limit your letter to a single page. Be succinct.
- Assess the employer's needs and your expertise. Then try to match them in the letter in a way that will appeal to the employer's self-interest.
- As much as possible, tailor your letter to each job opportunity. Demonstrate, if possible, some knowledge of the organisation to which you are applying. Remember, one size does not fit all.
- Write in a style that is mature but clear; avoid long and intricate sentences and paragraphs; avoid jargon. Use action verbs and the active voice; convey confidence, optimism, and enthusiasm coupled with respect and professionalism.
- Show some personality, but avoid hard-sell, gimmicky, or unorthodox letters. Start fast; attract interest immediately.
- Arrange the points in a logical sequence; organise each paragraph around a main point.
- Revise, check and proof-read. A document full of spelling and grammatical errors shows you as a lazy and careless person. Surely, you do not want to be seen so.

Exercise 13 **Curriculum Vitae** Here is an outline of a curriculum vitae or resume. Try to fill in as many details as possible about yourself in the given columns:

Personal Details
Name:
Address:
Phone:
Cell no.:
Email:
Nationality:
Date of Birth:

Education
Secondary/high school (years):
University/ Institute (years):

Employment
(starting from most recent onwards)

Additional Information

Interests

Referees

Note
It is preferable to repeat the highlights of your CV in your covering letter.

F. E-mail in Business Communication

While writing emails in business communication, observe the following rules:
- Provide the necessary information in brief.
- Language need not be as formal as in letters.
- Greetings and salutations can be minimised.
- Observe the appropriate tone.
- Avoid excessive use of emoticons, particularly when you do not know the receiver very well.
- Avoid writing the complete mail in capitals: do not scream for attention.
- Always write a subject heading. This gives the receiver a good idea of what to expect in the mail.
- Before sending, check the e-mail address.
- Proof-read for grammar and spellings.
- As in all writings, check before dispatch. Since e-mails cannot be called back, it is very important to pay attention to every detail before sending.

Look at the following e-mail exchanges:

From: hannah@ mant.com
To: sudheer@mant.com
CC:gaurav@mant.com
Subject: Meeting on Friday

Dear Sudheer
Following on our telephone conversation today, the preliminary meeting on annual Budget will be held on Friday morning, June 22, at 11 am in the Conference room. Please confirm.

Best
Hannah

Received Message

Dear Hannah
Thanks for the message regarding the meeting.22nd is fine for me. I'll bring along the latest figures.

Best
Sudheer

Exercise 14 As the office manager, write an e-mail to a colleague asking him to dress more formally than he actually does during the office hours.

G. Junk emails and Spams

Common Terms Related to Spamming   DoS: Denial of Service attack

Hacking: Various means by which someone tries to get control or access to a machine not their own.

Hijack: To take over another person's/organisation's computer and use it for their own purposes.

Backscatter: When spam is sent to a non-existent address, or an address which chooses not to accept it, and in either case, rather than just dropping it, the receiving host sends back a rejection message to the From or Reply to addresses.

Phish: Any sort of scheme to try and trick you into revealing your personal information (name, mother's name, SSAN, date of birth, bank account number, passwords, etc.).

Trojan: A trojan is a viable program that runs on its own. Like the Trojan Horse of myth, a trojan program seeks to trick a user into letting it operate on their system (click the email link and it starts, etc), which then may do anything that a program is capable of doing.

Pre Reading Activity

Let Us Discuss

- Do you often receive junk mails? Have you ever responded to them?
- Why do you think people send spam mails?

Reading 3

Read the following news item and answer the questions given below:

US Internet 'Spam King' arrested 31 May, 2007 | 0224 hrs ISTIAFP SAN FRANCISCO: US prosecutors said they have captured a nefarious Internet marketer responsible for so much junk e-mail they called him "Spam King."

Robert Soloway, 27, was arrested in Seattle, Washington, a week after being indicted by a federal grand jury on charges of identity theft, money laundering, and mail wire, and e-mail fraud.

"Spam is a scourge of the Internet, and Robert Soloway is one of its most prolific practitioners," said US Attorney for the Western District of Washington Jeffrey Sullivan.

"Our investigators dubbed him the 'Spam King' because he is responsible for millions of spam emails."

Between November of 2003 and May of 2007 Soloway "spammed" tens of millions of e-mail messages to promote websites at which his company, Newport Internet Marketing, sold products and services, according to prosecutors. Soloway routinely moved his website to different Internet addresses to dodge detection and began registering them through Chinese Internet service providers in 2006 in an apparent ploy to mask his involvement.

Spam messages sent by Soloway used misleading "header" information to dupe people into opening them, according to Sullivan. Soloway is accused of using "botnets," networks of computers, to disguise where e-mail originated and of forging return addresses of real people or businesses that wound up blamed for unwanted mailings.

If convicted as charged, Soloway will face a maximum sentence of more than 65 years in prison and a fine of 250,000 dollars.

Prosecutors want to seize approximately 773,000 dollars they say Soloway made from his spamming-related activities.

(*Source:* http://timesofindia.indiatimes.com/World)

Exercise 15   Give one word for the following:
- (i) A criminal activity/person
- (ii) Accused of
- (iii) To call/name someone
- (iv) Indulge in illicit transfer of finances
- (v) To fool people
- (vi) To escape

Exercise 16   Match the following:

A	B
(i) Robert Soloway was dubbed the "Spam King"	(a) …to escape detection.
(ii) Robert Soloway was found guilty of	(b) …to disguise the origin of the e-mail.
(iii) Soloway moved his website to different addresses	(c) …then Robert Soloway is one of its most frequent practitioners.
(iv) Soloway used 'botnets'network of computers	(d) … Soloway will face a sentence of 65 years along with a huge fine.
(v) If spam is a pitfall of internet	(e) …because he is responsible for a million e-mails.
(vi) If convicted	(f) …identity theft, money laundering, and mail wire and e-mail fraud.

SPEAKING: GROUP WORK

The following activity requires six students in each group:

David, Hari and Manish have just graduated from an engineering college. They are planning to start a business venture together. You are given the beginning of the conversation. At the end, continue the dialogue with six more meaningful responses.

Manish: How about online coaching in career development? Remember we discussed it once?

David: I think that's a great idea, but who will finance us?

Hari: Why not approach banks? There are many kinds of loans available.

David: I agree with Hari. Once we gat started I'm sure we will find some investors.

Manish: Coming to our potential clients, should we target students or professionals?

Hari: Why not include both students and professionals? Unrestricted admission is the trend these days, isn't it?

David: How much should we invest in advertising and publicity? Nowadays, it's so important to promote your business well. Should we approach a film star? What do you say?

Manish: Let's not spend too much on all that; basically we are looking at a word-of-mouth kind of publicity.And anyway, a film star won't be much of a value-addition to our project.

Hari: We have no previous experience in these things and need expert advice.

Manish: Let's do it. I'll contact this professional career management company right away. (*He takes a business card out of his pocket and starts dialling a number*).

David, Manish and Hari meet again after a week. This time they have three experts with them. Devise a role play for each of them and carry on the conversation for six meaningful exchanges.

Let us Revise
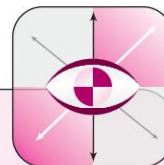
In this chapter, we have looked at different kinds of letters which people write for business communication. Although there are some more, the basic principle remains the same. Ask yourself who you are writing to and why you are doing so. Provide all the necessary details and keep the relevant documents ready. Give dates and reference numbers, wherever needed. Always follow-up, in case of no response.

1. Find appropriate terms for the following:
   (i) A diagram which uses bands of different heights and equal widths to show different amounts
   (ii) A process of buying, selling and exchanging over the Internet of products, services or information between companies
   (iii) The person in a company who has the most power
   (iv) The manner of writing that decides whether our style is appropriate or not
2. Find a word for the following phrases and expressions:
   (i) A list of topics to be discussed at a meeting
   (ii) A person who sells shares hoping to buy them back at a lower price
   (iii) A form of marketing where a company creates interest in a new product by persuading interested users or websites to pass on the message about it
   (iv) The process of collecting and analysing information about markets and competitions
   (v) A list of goods that have been sold
3. For more on letters to editors, visit the following site:
   www.comnetwork.org/verizon_resourcecenter/stratpr_letter_to_editor.htm

Answer Key
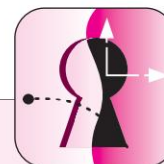
Exercise 1
 (i) (f)   (ii) (c)   (iii) (d)   (iv) (b)   (v) (a)   (vi) (e)
(vii) (h)   (viii) (g)

Exercise 2
A graph representing the kinds of e-commerce:

	Business	Consumer
Business	B2B	C2B
Consumer	B2C	C2C

Exercise 3
(i) (b) (ii) (iii) (a) (iv) (f) (v) (d) (vi) (c)

Exercise 5
(i) enquiry (ii) requested (iii) attach (iv) delivery
(v) assure (v) guarantee (vii) confirm (viii) business

Exercise 6
(i) (e) (ii) (b) (iii) (d) (iv) (c) (v) (a)

Exercise 7
(i) I'm afraid (ii) It's a pleasure to inform you (iii) I'm afraid
(iv) would you like me (v) I'm sorry (vi) would you mind
(vii) if I may say so (viii) be my guest (ix) We apologise

Exercise 8
(i) Road (ii) care of (iii) for example
(iv) and so on (et cetera) (v) Limited (vi) Corporation
(vii) Incorporated (viii) enclosed (ix) postage & parcel
(x) value added tax (xi) trademark (xii) that is
(xiii) copyright (xiv) at (xv) registered trademark
(xvi) Total Quality Management

Exercise 11
(i) into (ii) out (iii) up (iv) (v) on (vi) off (vii) out
(viii) in (ix) up (x) on

Exercise 15
(i) nefarious (ii) indicted (iii) dubbed
(iv) money laundering (v) dupe (vi) dodge

Exercise 16
(i) (e) (ii) (f) (iii) (a) (iv) (b) (v) c (vi) (d)

Let us revise
1. (i) Bar diagram (ii) b2b (iii) CEO (iv) tone
2. (i) agenda (ii) bear (iii) buzz marketing (iv) market research
   (v) invoice
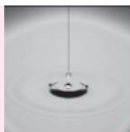
APPENDIX

Appendix I

IRREGULAR VERBS

Infinitive	Past Form (Pre Terite)	Past Participle	Infinitive	Past Form (Pre Terite)	Past Participle
arise	Arose	Arisen	Eat	Ate	Eaten
awake	Awoke	Awoken	Fall	Fell	Fallen
be	Was, were	Been	Feed	Fed	Fed
beat	Beat	Beaten	Feel	Felt	Felt
become	Became	Become	Fight	Fought	Fought
begin	Began	Begun	Find	Found	Found
bend	Bent	Bent	Fly	Flew	Flown
bet	Bet	Bet	Forbid	Forbade	forbidden
bind	Bound	Bound	Forget	Forgot	Forgotten
bite	Bit	Bitten	Freeze	Froze	Frozen
bleed	Bled	Bled	Get	Got	Got (AM) gotten
blow	Blew	Blown	Give	Gave	Given
break	Broke	Broken	Go	Went	Gone
bring	Brought	Brought	Grind	Ground	Ground
build	Built	Built	Grow	Grew	Grown
burn	Burned or burnt	Burned or burnt	Hang	Hung or hanged	Hung or hanged
burst	Burst	Burst	Have	Had	Had

(*Contd*)

(*Contd*)

buy	Bought	Bought	Hear	Heard	Heard
can[1]	Could	—	Hide	Hid	Hidden
cast	Cast	Cast	Hit	Hit	Hit
catch	Caught	Caught	Hold	Held	Held
choose	Chose	Chosen	Hurt	Hurt	Hurt
cling	Clung	Clung	Keep	Kept	Kept
come	Came	Come	Kneel	Knelt or kneeled	Knelt or kneeled
cost	Cost or costed	Cost or costed	Know	Knew	Known
creep	Crept	Crept	Lay	Laid	Laid
cut	Cut	Cut	Lead[1]	Led	Led
deal	Dealt	Dealt	Lean	Leaned or leant	Leaned or leant
dig	Dug	Dug	Leap	Leaped or leapt	Leaped or leapt
dive	Dived, (AM) dove	dived	Learn	Learned or learnt	Learned or learnt
do	Did	Done	Leave	Left	Left
draw	Drew	Drawn	Lend	Lent	Lent
dream	Dreamed or dreamt	Dreamed or dreamt	Let	Let	let
drink	Drank	drunk	lie[1]	Lay	Lain
drive	Drove	driven	Light	Lit or lighted	Lit or lighted
Lose	Lost	Lost	Speak	Spoke	Spoken
Make	Made	Made	Speed	Speeded or sped	Speeded or sped
May	Might	-	Spell	Spelled or spelt	Spelled or spelt
Mean[1]	Meant	Meant	Spend	Spent	Spent
Meet	Met	Met	Spill	Spilled or spilt	Spilled or spilt
Pay	Paid	Paid	Spit	Spat, (AM) spit	(AM) spit
Put	Put	Put	Spoil	Spoiled or spoilt	Spoiled or spoilt
Quit	Quit	Quit	Spread	Spread	Spread
Read	read	read	Spring	Sprang	Sprung
Rid	Rid	Rid	Stand	Stood	Stood
Ride	Rode	Ridden	Steal	Stole	stolen
ring[1]	Rang	rung	Stick[2]	Stuck	Stuck
Rise	Rose	Risen	Sting	Stung	Stung
Run	Ran	Run	Stink	Stank	Stunk
Say	Said	Said	Strike	Struck	Struck or stricken
See	Saw	Seen	Swear	Swore	Sworn
Seek	Sought	Sought	Sweep	Swept	Swept
Sell	Sold	Sold	Swell	Swelled	Swollen
Send	Sent	Sent	Swim	Swam	Swum

(*Contd*)

set[2]	Set	Set	Swing	Swung	Swung
Shake	Shook	Shaken	Take	Took	taken
Shed	Shed	Shed	Teach	Taught	Taught
Shine	Shone or shined	Shone or shined	tear[2]	Tore	Torn
Shoe	Shod	Shod	Tell	Told	Told
Shoot	Shot	Shot	Think	Thought	Thought
Show	Showed	Shown	Throw	Threw	Thrown
Shrink	Shrank	Shrunk	Wake	Woke, (AM) waked	Woken
Shut	Shut	Shut	Wear	Wore	Worn
Sing	Sang	Sung	Weep	Wept	Wept
Sink	Sank	Sunk	Win	Won	Won
Sit	Sat	Sat	Wind[2]	Wound	Wound
Sleep	Slept	Slept	write	Wrote	written
Slide	Slid	Slid			
Smell	Smelled or smelt	Smelled or smelt			

CONFUSABLE WORDS

1	Accept	Expect, except
2	Advice	Advise
3	Affect	Effect
4	Break	Brake
5	Bear	Bare
6	Bored	Board
7	Breath	Breathe
8	Cite	Sight
9	Cloth	Clothe
10	Complement	Compliment
11	Compose	Comprise/ consists of
12	Coarse	Course
13	Dual	Duel
14	Eligible	Illegible
15	Ensure	Insure
16	Fourth	Forth
17	Hear	Here
18	Knew	New
19	Later	Latter/letter
20	Lead	Led
21	Loose	Lose
22	Naval	Navel
23	Past	Passed
24	Principal	Principle
25	Quiet	Quite
26	Roll	Role
27	Stationary	Stationery
28	Through	Threw
29	Too	To
30	There	Their
31	Use	Usage
32	Versus	Verses
33	Wear	Where
34	Whether	Weather
35	Who's	Whose
36	You're	Your

BASIC VOCABULARY FOR TECHNICAL COMMUNICATION

Able, able-bodied
accept, acceptable
access, accessible
accident
according
account
achieve
access, accessible
accident
according
account
achieve
achieve
actor, actress
adapt, adaptation
address
admit, admission
adopt, adoption
Administer, administrator
adult
advance
Advertise, advertisement
affect
aim
always
amount
amuse
angel
angel
appear, appearance
appliance
applicant
appoint

artificial
artist
assignment
Attach, attachment
automobile
available
area
Athlete, athletic
average
audience

Based, basis
black market
beach
beautiful
beginning
benefit
boastful
boil, boiling
book (v)
board
bored
border
borrow, borrowing
bottle (n,v)
bottom
bowl
brass
bread
breakfast
breed
breeze
bride
brochure
budget

calculate
cancel
career
cast
cause
ceiling
celebrate
ceremony
certain
character
check, cheque
Child, children
child labour
choose, chose, chosen, choice
character, characteristics
cheerful
chemistry, chemical
cigarette
circle, circular
civil, civilization
climate
Compete, competence
complaint
complement
Conclude, conclusion
confess
confuse
construct, construction
control, controllable
continent
continue, continuous
copper
corporate, corporation

Corner
correct
cost
cotton
cough
courage, courageous
cultivate, cultivation, cultivable
curtain
curve

danger, dangerous
deaf
deal
deceive
decide, decision, decisive
decrease
destroy, destructible
develop, development
device
dictionary
diet
dine
dinner
diploma
diphtheria
disability
disabled
diseased
disposal
distance
divide, division, divisible
donate, donation
draft
drama

dream, dreamy
drove
doubled

ease, easy, easily
early, earlier
economy, economics
effect
electric, electricity
encourage, encouraging
ending
energy, energetic
engagement
engine
envelope
environment
equal, equality
equipment
examination
exciting
exercise
expect
experience
extract, extraction
event

factor
factory
facts
fault
Fertilization
fight, fighter
figure, figures
flourish

foreign
fraction
fried
fuel
function
funny
furniture
future

gain
gentleman
golf
govern, government
grain
grammar
graph
Grateful, gratitude
groom
guest
gush

harbour
hard
harsh
harvest
hatred
herb, herbal
heredity
hear, here
hire
History, historical
hollow
honor
hospital
hotel

ice
illness
important
independence
industry, industrial
influence
inspire
Interest, interesting
internet
iron

Joke, joker
judge
Junk food
justice
kneel
knife
knock
knowledge

labour
language
law, lawyer
lather
leather
light
link
liquid
listen
literature
location
loose, lose, loss
loud
loyal, loyalty

luggage
lunch

Manage, manager
mankind
Mass, masses
master
match
mature
measure
mechanical
medicine
method
metal
microwave
mine, mining
mineral
minister
mix, mixture
multiple
museum
music
moment
movement
muddy
multinational
myself

naval, navel
nation, national
Nature, natural, naturally
navy
neighbour
new

Noise,noisy
notice
novel
nuclear
Number

obey, obedience
office, officer, official
often
oil, oily
once
open-ended
origin, original
organisation
order
outing

parade
pay, payable, payment
paralysed, paralysis
parent
partial
party
paste
patient, patience
perfect, perfection
person, personality
petrol, petroleum
phase
phrase
Play, player
plot
point
politics, political, politician
population

power, powerful, powerless
practice, practice, practicable
president
prestige, prestigious
pretend, pretentious
proceed
procedure
process
procedure
produce, producer, product
project
progress, progressive, progression
protein
proof, prove, proven
purchase
punish, punishment

quack
queen
quality
quantity
quarter
quartet
quasar
question
quick, quickly
quite
quiet, quietly
quiz

rare
rear
reach
realise

reason
recommend, recommendation
record
region, regional
Relation, relative
relevant, relevance
report
resource
result
revise, revision
right
rigid
ring, rang, rung
rough
rotten
rude, rudeness
rule

sail, sailor
sale, sell
salary
schedule
score
screw
send
separate
Serious, seriously
set, setting
sew
shade
sharp, sharpness
sheet
Shock, shocking
shout

sight
silent, silence
sink
size
slump
society, social
snow
soft, softness
soldier
sound
source
Speak, spoken
spectacles
speech
spread
squeeze
state
steady
stick, sticky
straight
strange
structure
subject
success, succeed, successful
sudden
summary
sure
survive, survival
swear

team
teenager
television
theme

theory
thief
think
title
tolerant, tolerance
tragedy
translation
travel
trend
try
trust, trusting, trustworthy
trip
twice

ulcer
umbrella
understanding
untidy
utilise

vacation
victory
visit
vocation
vow

wash
waste
weak
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Weigh, weight
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winner

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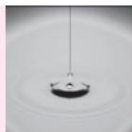
APPENDIX

Appendix II

Listening Activity 1

Animation Industry in India

Ashish: Hi there! The other day you guys were asking about careers in animation sector in India. Do you think it's a good career option?

Neha: Of course it is. In fact, this sector is witnessing a major boom. Companies like Walt Disney, Imax and Sony are outsourcing cartoon characters and special effects to India. Other companies are outsourcing animation from India for commercials and computer games.

Ashish: So what makes India a hub for animation?

Saahil: Look, major cities in India like Mumbai, Chennai, Bangalore, Hyderabad and Trivandrum have emerged as our animation hubs. A host of companies across these cities are catering to the outsourced world of animation and special effects. These animation firms have set up large production studios that are equipped with state-of -the-art equipment and hardware and software like SGI, 3DMax and SoftImage, SFX and processing motion capture facilities.

Ashish: But do we have the required infrastructure for this business?

Neha: Sure we do. India has a vast base of English speaking workforce. Animation, which requires familiarity with the English language, benefits when the work is outsourced to India.

Saahil: Also, India has the second largest entertainment industry in the world, after Hollywood. Animation studios in the country provide a large supply of low-cost, high-quality software engineers. But the main reason why foreign entertainment firms are flocking to India, is the cost advantage the country offers. For instance, in the US, animators can cost about $125 an hour; in India, they cost $25 an hour.

Neha: That's right. I hear that a full-fledged feature film called *Tommy and Oscar* is in the final stages of production at the Toonz Animation Studio, Technopark, Kerala. The Walt Disney Company has

outsourced some of its major animation projects to various studios across India. And, Cartoon Network is buying animation films made in India.

Ashish: Sounds wonderful. I think the day is not far when effects for Spiderman and Superman will be done in India.

Saahil: Quite possible. I believe that animation industry is a fast growing one. Last year, a study on the animation industry showed that the global animation production market is set for major growth. The study forecasts that the global animation market would generate revenues worth $50-70 billion this year.

Neha: And if it's animation, it has to be India.

Listen and Practice

- *Careers*
- *Animation*
- *Supply*
- *Infrastructure*
- *Studios*

Comprehension

1. Which international companies are interested in outsourcing animation work to India?
2. Why are international companies looking at India for their work?
3. Name the companies that are buying animation work in India.
4. How much revenue is expected to be generated through global animation market.
5. Fill in the blanks
    (i) A full-fledged feature film called _____ is being produced at the Toonz Animation Studio, Technopark, Kerala.
    (ii) In the US, animators can cost about _____ an hour; in India, they cost $25 an hour.
    (iii) India has the _____ largest entertainment industry in the world, after Hollywood.

Graphic Designing

Porko: Hi Neha. Are you coming for the lecture on graphic designing? It sounds like such an exciting career.

Neha: Of course, I'm going. I've been looking forward to this talk for so long. Let's go to the auditorium.

Speaker: Good morning friends. Welcome to this introductory talk on graphic designing. Some of you may be wondering, what is meant by graphic designing? Well, it's the process of communicating visually using text and images to present information. Graphic designs include a range of cognitive skills, aesthetics and crafts, such as typography, visual arts and page layout. Like other forms of design, graphic design often refers to both the process by which the communication is created and the products, that is designs, which are generated.

Now, graphic designing has a long history, and we'll talk about it some other time. But for now, let's understand the uses of graphic designing. You see, graphic design is used whenever visual clarity and creativity are applied to the presentation of text and imagery. Contemporary design practice has been extended to the modern computer, for example in the use of WYSIWYG user interfaces, often referred to as interactive design, or multimedia design.

So, wherever there is a need to communicate visually, there is potential enhancement of communications through graphic design. Let me give you a few examples: Graphic designing can be used for advertising. It is applied to products as well as elements of company identity like logos, colors, and text, together defined as branding. It can also be used in journalism, administrative purposes, web designing, and education. Designs can include brochures, posters, magazine covers, magazine layout, tickets, business cards, T-shirts, signs, logos, book layout (typesetting), importing advertisements into a newspaper, websites, CD covers, DVD interactivity elements, Internet banners, flash animation, web interfaces, power-point presentations, and more. So you see there's plenty of scope in the job market. And…oh, I think someone has a question for us. Go ahead, please.

Porko: I was wondering about the minimum qualifications for this profession.

Speaker: I was coming to that. Generally, a bachelor's degree is required for most entry-level positions; however, an associate degree may be sufficient for some technical positions. Job seekers should be prepared to face keen competition. But individuals with a bachelor's degree and knowledge of computer design software, particularly those with Web site design and animation experience will have the best opportunities. Beginning graphic designers usually receive on-the-job training and normally need 1 to 3 years of training before they can advance to higher positions. Experienced graphic designers in large firms may advance to chief designer, art or creative director, or other supervisory positions. Some designers leave the occupation to become teachers in design schools or in colleges and universities. Many faculty members continue to consult privately or operate small design studios to complement their classroom activities. Some experienced designers open their own firms or choose to specialize in one area of graphic design.

Neha: Sir, it seems that graphic designers should constantly interact with their clients.

Speaker: Absolutely. You must understand that designers are the link between the client and the audience. While a client is often too close to the message to understand various ways in which it can be presented, the audience is often too broad to have any direct impact on how a communication is presented. What's more, it is usually difficult to make the audience a part of the creative process. Unlike client and audience, graphic designers learn how to construct a message and how to present it

successfully. They work with the client to understand the content and the purpose of the message. Also, they often collaborate with market researchers and other specialists to understand the nature of the audience. Once a design concept is chosen, the designers work with illustrators and photographers as well as with typesetters and printers or other production specialists to create the final design product.

At this point, I would like to invite some more questions, and then perhaps we can talk about some top colleges that offer a course in graphic designing.

Listen and Practice

- *Graphic*
- *Universities*
- *Multimedia*
- *Specialists*
- *Designers*

Comprehension

1. Fill in the blanks with appropriate words you have heard in the passage:
   (i) Graphic designing is the process of communicating visually using _____ and _____ to present information.
   (ii) Graphic designs include a range of _____ skills, aesthetics and _____.
   (iii) Contemporary design practice has been extended to the modern computer, for example in the use of _____ user interfaces, often referred to as interactive design, or multimedia design.
   (iv) Unlike client and audience, graphic designers learn how to construct a _____ and how to present it successfully.
2. Name the cricketer who got the highest bidding.
3. What are the minimum qualifications required for graphic designing.
4. What's the scope for experienced graphic designers in large firms?
5. WYSIWYG is an acronym for _____

Indian Premier League

Anand: Hey! Did you watch the news yesterday? Eight IPL franchises traded cricketers for astronomical sums, and Dhoni got the highest bid of a $1.5 m.

Hannah: I heard my dad speaking to his friends about it, but couldn't really get it. What's IPL?

Dilip: It stands for Indian Premier League, and is backed by ICC. Soon they'll be starting the official tournaments as well.

Anand: As a matter of fact, the pre-tournament hype has been phenomenal. First, some of the biggest names in Bollywood chipped in to buy teams in the league, then six cricketers fetched more than $1 million to play in the tournament at a player auction.

Hannah: Amazing! So are we going to have regular matches of IPL?

Dilip: Of course. The Indian Premier League, a Twenty20 tournament will include eight city teams — Mumbai, Delhi, Kolkata, Bangalore, Jaipur, Chennai, Chandigarh and Hyderabad. Fifty-nine night matches will be played in April and May. Because Twenty20 games last only three hours, the tournament will be perfectly packaged for prime-time TV in India. At last count, IPL deals — including TV rights, team franchises and players — came to $2 billion. In Australia, Network Ten bought the rights to show every IPL game live for the five years at a cost of $10 million to $15 million.

Hannah: Those people must've done lot of market research for this.

Anand: You bet. To plan the new cricket competition, the organisers studied the world's major sporting competitions, including the English Premier League, European soccer leagues and the American basketball and baseball leagues, and then came up with a hybrid model.

Dilip: The ownership of the IPL teams is a mix of corporate moguls and movie stars. Lachlan Murdoch picked up a stake in the Rajasthan Royals team, which will be captained and coached by Shane Warne.

Anand: Whatever it is, but I get a feeling that IPL will certainly change the way we understand cricket.

Listen and Practice

- *Premier*
- *League*
- *Phenomenal*
- *Tournaments*
- *Corporate*

Comprehension

1. What does IPL stand for?
2. Who got the highest bidding?
3. Name the eight cities involved in IPL.
4. State whether the following statements are true or false:
    (i) To plan the new cricket competition, the organisers studied the world's major sporting competitions, including the American Premier League.
    (ii) Twenty20 games last only three hours.
    (iii) The ownership of the IPL teams is a mix of corporate moguls and cricket stars.
    (iv) Rajasthan Royals team will be captained and coached by Shane Warne.

Being on Facebook

Hannah: Guess what! I've registered for facebook today**!** Finally I can post messages for my friends to see, and update my personal profile to notify friends about myself.

Ajay: Great! But do you know that the name of the website refers to the paper facebooks depicting members of a campus community that some American colleges and preparatory schools give to in-coming students, faculty, and staff as a way to get to know other people on campus?

Sanju: I guess it is the second largest social network on the Web with around 60 million members. It is different from competitors basically by imposing a strict design ethos and limiting how users can change the appearance of their profile pages. That has cut down on visual clutter and threats like spam, which plague rival social networks.

Hannah: One thing that I find most attractive about facebook is the Photos application, you know, where users can upload albums and photos.

Ajay: You're right. Facebook allows users to upload an unlimited number of photos, compared to other image hosting services, which apply limits to the number of photos that a user is allowed to upload.

Sanju: Last year, Facebook launched Gifts, which allowed users to send virtual gifts to their friends and appeared on the recipient's profile. The gifts cost US$1.00 each to purchase and a personalized message can be attached to each gift. Then again Facebook launched the Marketplace application, allowing users to post free classified ads on the website.

Ajay: This year, Facebook began releasing a Chat feature to a limited amount its networks. This new component of the website is not an application, but instead is integrated directly into the user's browser as the user browses the Facebook website. The feature allows users to Instant Message their friends, much in the way Google Talk or AOL Instant Messenger works.

Hannah: However, there's a flip side to all this. Due to the open nature of Facebook, several countries have banned access to it. Some governments think that the website promoted attacks on the authori-ties. Facebook was used as a tool to criticize the government by its citizens, and in some other coun-tries, Facebook was banned because the website was considered to assist in online dating, which was banned under the government's new internet policy.

Sanju: Still the popularity of Facebook is on the increase. Nowadays, even celebrities are using it to profile themselves.

Listen and Practice

- *Registered*
- *Launched*
- *Governments*
- *Website*
- *Considered*

Comprehension

1. What does the name facebook refer to?
2. How does facebook differ from competing websites?
3. Fill in the blanks:
    (i) Last year, Facebook launched _____, which allowed users to send virtual gifts to their friends
    (ii) This year, Facebook began releasing a _____ feature to a limited amount its networks.
    (iii) Facebook is the second largest social network on the Web with around _____ million members.
4. What are some of the problems that Facebook encounters?

Science Fiction Films

Gaurav: Let's go and watch a movie this evening.

Aarti: I believe *Matrix Revolutions* is running at *Siddhartha* theatre. What do you say?

Bharat: I think that's a great idea. I can watch that any number of times. Know what? *The Matrix* trilogy is my all-time favourite sci-fi movie. I would rate it even better than *Star Wars* and *Aliens*.

Aarti: Well, it's good, no doubt. But I wouldn't say that it's the best. If you ask me, I would say that the best ever sci-fi is *Blade Runner*. The story revolves around a policeman, played by Harrison Ford, and his hunt for four cloned humanoids, known as replicants, in a futuristic Los Angeles. Replicants have been deemed illegal and Ford's character is a blade runner, a specialist in exterminating them.

Bharat: I remember reading somewhere that the film is partly based on Philip K Dick's short story, "Do Androids Dream of Electric Sheep?" It often tops the opinion polls on sci-fi movies.

Gaurav: I find the genre of science fiction movies pretty exciting. I mean, where else can one find extraordinary heroes, distant planets, impossible quests, improbable settings, fantastic places, great dark and shadowy villains, futuristic technology and gizmos, the works?

Aarti: Actually, sci-fi cinema owes so much to literature. It all began with the works of Jules Verne, the author of Twenty Thousand Leagues Under the Sea and also H.G. Wells, who wrote *The Invisible Man* and *The Time Machine*, not to mention *The War of the Worlds*.

Gaurav: And don't forget the classic *Frankenstein* by Mary Shelley.

Bharat: So Gaurav, which is your fave sci-fi?

Gaurav: Let me think. In fact there are too many, for example, *The Invasion of the Body Snatchers*, *The Omega Man*, *Gattaca*, and also, *The Island*. But the best for me is *The Terminator*, especially the second part, which had Arnold Schwarzenegger playing a cyborg. It had some of the most amazing special effects ever seen.

Aarti: Quite right. Talking about special effects… I think *2001: A Space Odyssey* was remarkable for its technology, especially for those days. I believe it was in the late sixties, or so. It was an awesome collaboration between the director Stanley Kubrick and writer Arthur C. Clark.

Bharat: That was some movie! I believe they had spacecraft consultants who had worked for NASA, as their advisors. These two guys persuaded companies such as Boeing and IBM to supply prototypes and technical documents for use in the film.

Gaurav: Yeah, that movie had some brilliant simulations… much better than the computer graphics they use today.

Aarti: By the way, it's about time we start for the movie. *Siddhartha* is quite a distance from here.

Listen and Practice

- *Revolutions*
- *Technology*
- *Cyborg*
- *Computer*
- *Futuristic*

(**Comprehension**)

1. Name any three writers of science fiction mentioned in the conversation.
2. Mention any three science fiction movies mentioned by Gaurav.
3. Mary Shelley wrote the classic _____
4. The actor who played the role of a policeman in Blade Runner is _____
5. Match the columns

Science fiction work	Writer/director
1. 20,000 Leagues under the Sea	(a) H.G. Wells
2. The War of the Worlds	(b) Jules Verne
3. *2001: A Space Odyssey*	(c) Philip K. Dick
4. Do Androids Dream of Electric Sheep?	(d) Stanley Kubrick & Arthur C. Clark

Plagiarism? What's that?

Professor: I understand that all of you are very clear about your assignments and term papers. Aren't you? If there are any questions, you may ask me. Come on go ahead.

Varsha: Sir, can we consult books and other published material while writing our papers and assignments?

Professor: Sure, why not? But remember to give all the references accurately. Mind you, there should be no plagiarism.

Naresh: I didn't get you, sir. What's plagiarism?

Professor: Plagiarism, Naresh, is copying someone else's work or ideas and passing them off as one's own. It happens very often in academic circles.

Varsha: I guess it's as bad as cheating. But sir, I have seen people lifting material off the net and using them for assignments. Shouldn't we do that?

Professor: Absolutely not! It involves using someone else's work without giving them due credit. It can be deliberate or accidental and it doesn't matter if the original creator gives permission to use their work or not. An old educational joke says if a student consults one book for an assignment that's plagiarism, but if it's two books that's research.

Everybody laughs

Professor: Plagiarism, however, is no laughing matter for schools, higher education, institutions or examination boards, and there is sufficient evidence that the problem is getting worse. In fact, plagiarism has always been around, but the rise of computers, word processors and the internet have made it much easier for students to plagiarise other people's work.

Naresh: Sir, the net has also contributed a lot towards encouraging plagiarism.

Professor: Without a doubt. In the past, text from a book had to be laboriously copied out by hand, but now, anyone can download a document and cut and paste sections of it into an essay or assignment. Text can be edited and manipulated or moved around within a matter of seconds.

The net has spawned the rise of cheat sites that offer students pre-prepared essays and dissertations for a fee, with prices ranging from around 10 pounds/dollars to several hundred, depending on the content. Essays are even sold through e-business.

Varsha: But is the situation very bad, sir?

Professor: It is, Varsha. Also, abroad the issue is so acute that higher education centres have set up plagiarism advisory bodies. Such organisations provide advice and guidance on plagiarism to institutions and their website is packed with information.

In most cases, students are not aware of what they're doing and don't know about the need to credit their sources. Educational institutions are interested in improving academic practice and not catching copycats.

Naresh: Sir, what can be a possible cure for this?

Professor: In extreme cases, I'm afraid, students can be expelled for plagiarism; however, I feel that education is the key to tackling the problem. Students and writers should understand the difference between quotation and plagiarism. So I do hope you are clear about the difference between plagiarism and quoting.

Students: Yes, we are, sir. Thank you so much.

- *Plagiarism*
- *Assignment*
- *Institutions*
- *Information*
- *E-business*

Questions

(i) What is plagiarism?
  (a) copying from internet
  (b) copying from books
  (c) taking material from all kinds of sources without acknowledging the source.
(ii) What's the joke that the professor cracks?
(iii) The net has contributed towards plagiarism by enabling people to
  (a) download a document
  (b) buy a document through e-marketing
  (c) cut and paste documents
  (d) all the above
(iv) What do organizations such as plagiarism advisory body do?
  (a) catch the cheats
  (b) provide guidance about copying
  (c) expel the plagiarists from the educational institutes

What is Biometrics?

Master of Ceremonies: Good evening, ladies and gentlemen. It gives me immense pleasure to welcome our distinguished guest, Dr. Harish Chandra, Programme Director, Biosciences Institute of India. Dr. Chandra is the founder and head of Rehabilitation Bioengineering Group, a team comprising physicians, health care professionals, engineers and basic scientists. He has been on the team of researchers at Biometrics Department at Yale University. He has published 30 articles and four books in this area. We look forward to a stimulating evening of discussion and information about the area, and the audience can put forward their questions to the speaker. Over to you, Dr. Chandra.

Dr. Harish Chandra: Thank you. Let me begin from the beginning. It would be stating the obvious to say that individuals have personal traits that are unique to them, based on which they can be distinguished. Biometrics is the study and application of these traits for the purpose of uniquely identifying individuals

Biometric traits are unique, universal, permanent, and easy to measure. It is for these reasons that they make an ideal identifier. The traits include fingerprints, facial features, retinal vein patterns, hand measurements, iris patterns, tone and timbre of the voice, DNA, gait, dental structure and an individual's signature.

Man: Dr. Chandra, what's the scope of Biometrics?

Dr. Harish Chandra: You see, the scope is…it all depends on the user and how he chooses to employ the tool. Earlier, they were primarily used for access control in secure and sensitive zones, and used exclusively in military and other government applications, but now are finding their way into a number of everyday applications.

In India, biometrics has a wide scope in banks, defense installations, research laboratories, etc, where high security and secrecy is required. Considering the vast population, it has a very useful application in elections, where the authenticity of a voter is very difficult to ascertain. The devices can also be used to provide confidential financial transactions and personal data privacy. Enterprise-wide network security infrastructures, government IDs, secure electronic banking, investing and other financial transactions, retail sales, law enforcement, and health and social services are some fields that are already benefiting from biometric technologies.

Man: I would like to know if we are making optimum use of all the branches in our country.

Dr. Harish Chandra: Of all the branches of biometrics that exist currently, only six are used in India. These are fingerprints, hand geometry, iris and retina scanners, voice recognition systems, and facial recognition systems. Of these, the major technologies are fingerprints in fact, about 80 per cent of the Indian market, hand geometry constitutes about 10 per cent, iris and retina scanners about 5 per cent and voice recognition systems are approximately 5 per cent. Facial recognition systems are still in the preliminary stages of development in India.

Man: Sir, I'm a student from SST School, and planning to join an engineering college. I'm considering Biometrics as one of the possible options. But I'd like to know about the job opportunities in this field.

Dr. Chandra: Career opportunities exist in abundance in biometrics and Development is one of the promising areas. Newer devices are being developed and companies are looking to reduce the error rates of the devices. Software development is another area that is on the rise as newer algorithms are being designed to improve the accuracy of the devices. Retail, product application and security consultancy are also areas where there are promising job prospects.

Woman: Excuse me…I was just thinking…What about jobs in manufacturing?

Dr. Chandra: Manufacturing is not a major career option in India at present, since the field is still in the nascent stages. The majority of the manufacturing is done abroad. The devices are manufactured in USA, China, Korea and Japan and then exported to India where they are sold. However, manufacturing sectors are coming up in Gujarat and West Bengal now.

I'll come to the future of biometrics now…which looks quite promising. As the level of security breaches and transaction fraud increases, the need for highly secure identification and personal verification technologies is becoming apparent. The answer can be found in biometric technologies, which are becoming the foundation of an extensive array of highly secure identification and personal verification solutions.

Master of Ceremonies: I think, it's time to break for tea now, which is served in the ante room. Ladies and gentlemen, we'll assemble again after tea, by 11.30.

Listen and Practice

- *Biometrics*
- *Engineers*
- *Professionals*
- *Optimum*
- *Identification*

Questions

(i) Give a description of Dr. Harish Chandra in three sentences.

(ii) Fill in the blanks from words in the text:

    (a) Individuals have personal traits that are unique to them, based on which they can be _____.

    (b) Biometrics is the study and _____ of the traits for the purpose of uniquely identifying individuals.

    (c) Biometric traits are unique, _____, permanent, and easy to measure.

(iii) Biometric traits include the following:

    fingerprints, a. _____ features, b. _____ vein patterns, hand measurements, c. _____ patterns, d. _____ and timbre of the voice, DNA, gait, e. _____ structure and an individual's signature.

(iv) What's the scope of biometrics in India? Mention any five areas

(v) How does biometrics fare in the area of manufacturing in India?

Surface Computer

Sales manager: Good afternoon, ladies and gentlemen. I'm Janardan Singh representing the marketing department of MT, technologies, India. Thank you for sparing your time for this demo session. I promise I won't take long, and please feel free to interrupt me as I introduce our most recent computer model, the "surface computer" from MT, technologies. So here it is, shaped like a coffee-table, and without a mouse and keyboard.

Woman: Then how do we operate it?

JS: The operation is very interesting and innovative. The mouse and keyboard are replaced by more natural interaction using voice, pen and touch. Allow me to demonstrate…here you go. You see, one touch and it's on.

Now about its physical description, as it's obvious, it has a 30-inch display under a hard-plastic tabletop, and it allows people to touch and move objects onscreen for everything from digital finger painting and jigsaw puzzles to ordering off a virtual menu in a restaurant.

Man: This is marvelous!

JS: And what's more, it recognizes and interacts with devices placed on its surface, so cell phone users can easily buy ring tones or change payment plans by placing their handsets on in-store displays. A group of people gathered round the table can check out the photos on a digital camera placed on top.

Man: And when are you making it available in the market?

JS: Well, initially it is for supplying to our corporate customers…for instance, your company. The first units will be deployed in January in Sheraton hotels, Harry's casinos, T-Mobile stores and restaurants. In fact, MT held demonstrations recently and it was officially introduced at the *Economics Today Journal's* "D: All Things Digital" conference on Wednesday.

Woman: Tell us more about it's working, Mr. Janardhan.

JS: Sure, madam. In a demonstration, MT placed a digital camera with a wireless chip on the tabletop. The Surface recognizes the camera and sent its pictures to the display, allowing people around the table to select, grabbing and turning pictures or making them bigger or smaller by spreading or narrowing their fingers.

MT showed in another demonstration how cell phone operator Q-Mobile USA, one of its launch partners, could deploy the computer in its stores. A customer can grab a phone off the shelf, place it on the tabletop where it will recognise the device and pop up the handset's specifications and information to the screen. For a side-by-side comparison with another phone, the customer can put down a second handset next to the first phone.

It is drop-dead simple and people really like it, because it mimics what they do in the real world.

We see this as a multibillion dollar category, and we can predict a time when surface computing technologies will be all around us, from tabletops and counters to the hallway mirror.

Man: I was just thinking that MT has a mixed record with new technology. Its M tune music player has not yet become a major challenger to Apple's iPod, has it?

JS: I agree with you…but our Zbox 360 game console has enjoyed early success in the battle of next-generation game machines. For years our co-founder, Mr. Jay Williams promoted touch-screen technology such as the tablet PC with little success, but the Surface is a different shape and allows for multiple users at once. It is a major step towards Mr. Williams' view of a future where the mouse and keyboard are replaced by more natural interaction using voice, pen and touch.

I conclude by saying that the potential for the interface is huge, and once you open it up to applications, what you can think of is limitless

232 Appendix 2

- *Marketing*
- *Department*
- *Customer*
- *Available*
- *Multiple*

Questions
↗

1. What is the passage all about?
2. How is the new computer operated?
3. Physically, the computer consists of the following (say true/false):
    (a) it has a 20-inch display
    (b) the display is under a hard-plastic tabletop,
    (c) it allows people to touch and move objects onscreen for everything
4. State true or false:
    The new computer can perform the following functions:
    (a) recognizes and interacts with devices placed on its surface, so cell phone users can easily buy ring tones or change payment plans by placing their handsets on in-store displays.
    (b) allows people to touch and move objects onscreen for everything from digital finger painting and jigsaw puzzles to ordering off a virtual menu in a restaurant.
    (c) recognizes the camera and sends its pictures to the display; however cannot allow people around the table to sift through them or manipulate pictures.

Graphic Novels

Man (to his companion): Here we are. Now you can select a gift for Pradeep.

Woman: Excuse me; can I have a moment, please?

Salesman: Sure, madam. How can I help you?

Woman: I'm looking for some reading material for my nephew, could you help me please?

Salesman: Certainly, madam. How old is he?

Woman: He's going to be fifteen…and he likes reading comics, you know all those action heroes like superman, batman.

Salesman: This way please, madam. Here you'll find all kinds of comics and more.

Man: Wow! Look at this display! I never knew there's such a vast variety of comics available. And I don't even know some of these characters.

Salesman: Sir, would you like to look at these ones over there? These are graphic novels.

Woman: Graphic novels? What are those?

Salesman: It is a sort of publishing format — books written and illustrated in the style of a comic book. You know, a series of illustrations which, when viewed in order, tell a story.

Man: But aren't they like comics?

Salesman: Well, almost. The term graphic novel is now generally used to describe any book in a comic format that resembles a novel in length and narrative development.

Man: Ah, it does ring a bell. I believe films like Sin City and 300 are based on graphic novels, aren't they?

Salesman: You're absolutely right, sir. Some other popular titles are *Bone*, *Persepolis*, *Maus*, and *The Tale of One Bad Rat*. Here, please take a look.

(Rustling of pages).

Woman: I've a doubt; don't these books contain plenty of violence and explicit language?

Man: Well, the term graphic explains itself, I suppose…

Salesman: Well sir, not exactly. There are some people who may associate the term "graphic novels" with content that includes violence, adult language, and provocative images, still there are many comics and graphic novels that are free of such content and are suitable for all ages, including children. In fact, there are many award-winning, critically acclaimed graphic novels, and some of these are even used in classrooms.

Man: Oh, I see. Tell us more.

Salesman: Graphic novels powerfully attract kids and motivate them to read. Many public librarians have built up graphic novel collections and have seen circulation figures soar. School librarians and educators have reported considerable success getting kids to read with graphic novels, citing particularly their popularity with reluctant readers, especially boys — a group generally difficult to reach. At the same time, graphic novels with rich, complex plots and narrative structures can also be satisfying to advanced readers.

Woman: Ah, I spot Agatha Christie over there!

Salesman: Here're some more Agatha Christie works. As you can see, they are based on bestsellers by Agatha Christie, with fantastic illustrations.

Man: Hmm…very nice, but quite pricey.

Salesman: It varies according to the quality of illustrations, sir. We've graphic version of other literary titles as well. It has been found that graphic novels can also help improve reading development for

students struggling with language acquisition, as the illustrations provide contextual clues to the meaning of the written narrative. When graphic novels are made available to young people, even those so-called "slow readers" enthusiastically read these books. Graphic novels are a step towards helping young people become lifelong readers.
Man: I guess it all boils down to choosing the appropriate reading material, language and theme-wise.
Salesman: You are right sir. Reading graphic novels can help teenagers develop the skills necessary to read more challenging works, including the classics.
Woman: Thank you so much. You've been a great help. Now we know exactly what to pick for our nephew. He'll be absolutely delighted to have a set of these.
Salesman: You're welcome, madam.

Listen and Practice

- *Illustrations*
- *Bestsellers*
- *Quality*
- *Version*
- *Literary*

Questions

1. Where do you think the conversation is taking place?
   (a) at a library
   (b) at a school
   (c) at a bookshop
2. What are graphic novels?
3. Which of the following graphic novels are not mentioned in the conversation?
   (a) Sin city
   (b) V for Vendetta
   (c) 300
4. What does the term pricey suggest to you?
   (a) fashionable
   (b) illustrated
   (c) expensive
5. Some people have negative opinions about graphic novels because.....

The Orkut Community

Prateek: Hi, Ankita, how was the exam?

Ankita: Oh give me a break, can we drop the subject of exams? I just don't want to hear any more on theories and theorems. Please can we move on?

Prateek: Thumbs up to that, Ankita. Let's go to the canteen.

(They all go to the canteen).

Prateek: Now look who's over there! Our very own whizkid with his laptop. Hey Sunny, what's the latest?

Sunny: Hi guys, didn't see you coming.

Ankita: I see you're chatting online, right?

Sunny: Actually, Scrapping. On Orkut.

Ankita: I've heard so much of Orkut and scrapping. Tell me more about it, Sunny.

Prateek: I'll go get some coffee, and snacks for all of us. Just a moment, Sunny.

Sunny: Sure. Ankita, scrapping is a kind of offline chatting on Orkut. Users can scrap on another member's scrap book, even if that member is offline. The scrap recipient will be able to see it when he or she visits their scrapbook. As opposed to personal messaging or email, scrap book entries are public, meaning that any one with an Orkut account can read others' scraps. Users can reply to a scrap from their scrapbook itself by replying to a scrap.

Prateek: And you know, scraps can also be in HTML, enabling users to post photos, videos, audio files and other embedded objects directly into others' scrapbook.

Ankita: I guess Orkut has a list of features unique to itself like "Scrapbook", "Communities" etc., apart from the normal features like messaging and photo album.

Sunny: You're right. The Orkut community is a mind-boggling number. Users first create their "Profile", in which he/she mentions his/her Social, Professional and Personal details, with the option of choosing which group of people would be allowed to view the particulars. A user can also upload his/her photo as the photo of his profile. If necessary, a user can completely remove his profile photo also.

And do you know that recently Orkut announced another new feature? You can now see "Updates from your friends" box on the homepage where you'll get real-time updates when your friends update or make changes to their profiles, photos and videos. Moreover in case of things on your profile you want to keep private, Orkut has added an easy opt-out button on the settings page.

Another unique feature of Orkut is "Communities". Anyone with an Orkut account can create a community on anything. One can post topics, inform users about an event, ask them questions or just play games. There are more than a million communities on Orkut with a variety of topics. Users can upload photos into their Orkut profile with a caption. They can also add videos to their profile from either YouTube or Google Videos.

Ankita: Awesome!

Prateek: Moreover, there is a personal messaging feature. Users rarely use this feature. It is mainly used by community owners to ask others to join their community. Though the messages are meant to be personal they aren't. If you know the exact link of the message then you can visit and read their messages. But then we have problems like flooders and fake profiles. Like everything else on the net, Orkut too is not free from shortcomings. It has been reported that as the number of Orkut users increased, there was a rise in the number of fake and clone profiles, something that can be achieved

just in a matter of minutes. Due to the large number of users, the profiles were often left as they are or, when removed, recreated easily. These profiles are normally created to spam, to flood or just for fun. It isn't hard to find users owning more than one profile, with some stating they own hundreds. Also, many of the users use these profiles to steal art that were previously posted online and deem it their own. The original artist is not asked for approval, much less even named.

Sunny: There's also the menace of hate groups. There has recently been controversy revolving around the use of Orkut by various hate groups. It is believed that the racists sorts have a solid following there. Several hate communities focused on racism, Nazism and white supremacy have been deleted due to guideline violation. However the number of these communities and profiles has not stopped growing because they can be very easily created and it is hard for Orkut to check them.

Prateek: There were some security issues too. Last year security researchers found something called MW.Orc worm, a kind of virus which steals users' banking details, usernames and passwords by propagating through Orkut. The attack was triggered as users launched an executable file disguised as a JPEG file. The initial executable file that causes the infection installs two additional files on the user's computer.

Sunny: Yeah. These files then e-mail banking details and passwords to the worm's anonymous creator when infected users click on the "My Computer" icon.

Prateek: Exactly. The infection spreads automatically by posting a URL in another user's Orkut Scrapbook, a guestbook where visitors can leave comments visible on the user's page. This link lures visitors with a message in some foreign language, falsely claiming to offer additional photos. The message text that carries an infection link can vary from case to case.

Sunny: In addition to stealing personal information, the malware can also enable a remote user to control the PC and make it part of a botnet, a network of infected PCs. The botnet in this case uses an infected PC's bandwidth to distribute large, pirated movie files, potentially slowing down an end-user's connection speed. Of late, in our country there have been certain incidents leading to stricter control over internet communities and dot com businesses.

Ankita: Ah, here come our snacks.

**Prateek:** Wonderful. Let's continue the discussion over coffee.

Listen and Practice

- *Scrapping*
- *Profiles*
- *Business*
- *Security*
- *Connection*

Questions

1. Where's the conversation taking place?
   (a) in a college
   (b) in a college canteen
   (c) in a library
2. How many people are involved in the conversation?
   (a) 4   (b) 5   (c) 6

3. What is scrapping?
4. Fill in the blanks from words you heard in the text:
    (a) In Orkut communities, users first create their _____, in which they mention their social, professional and personal details,
    (b) in case of some things on your profile you want to keep private, Orkut has added an easy _____ button on the settings page.
    (c) as the number of Orkut users increased, there was a rise in the number of fake and _____ profiles.
    (d) Several hate communities have been deleted due to _____ _____.
5. What is **MW.Orc?**
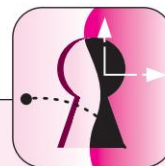
Answers to Listening Exercises

Listening Activity 1

Animation Industry in India

1. Walt Disney, Imax and Sony are outsourcing animation jobs to India.
2. India has a vast base of English speaking workforce; also, India provides cost-effective workforce.
3. Cartoon Network is buying animation films made in India.
4. $50-70 billion.
5. (i) *Tommy and Oscar* (ii) $125 (iii) second

Listening Activity 2

Graphic Designing

1. (i) text and images (ii) cognitive, craft. (iii) WYSIWYG (iv) message
2. advertising, education, journalism.
3. Generally, a bachelor's degree is required for most entry-level positions; however, an associate degree may be sufficient for some technical positions
4. Experienced graphic designers in large firms may advance to chief designer, art or creative director, or other supervisory positions.
5. What you see is what you get.

Listening Activity 3

Indian Premier League

1. Indian Premier League
2. Dhoni for $1.5 m.
3. Mumbai, Delhi, Kolkata, Bangalore, Jaipur, Chennai, Chandigarh and Hyderabad
4. (i) False (English) (ii) True. (iii) False (movie). (iv) True

Listening Activity 4

Being on Facebook

1. The name of the website refers to the paper facebooks depicting members of a campus community that some American colleges and preparatory schools give to incoming students, faculty, and staff as a way to get to know other people on campus.
2. It is different from competitors basically by imposing a strict design ethos and limiting how users can change the appearance of their profile pages.
3. (i) gifts (ii) chat (iii) 60
4. Due to the open nature of Facebook, several countries have banned access to it. Some governments think that the website promoted attacks on the authorities. Facebook was used as a tool to criticize the government by its citizens, and in some other countries, Facebook was banned because the website was considered to assist in online dating, which was banned under the government's new internet policy.

Listening Activity 5

Science Fiction Films

1. Philip K Dick , Mary Shelley, Jules Verne, H.G. Wells and Arthur C. Clark.
2. *The Invasion of the Body Snatchers*, *The Omega Man*, Gattaca, *The Island* and *The Terminator*.
3. Frankenstein.

4. Harrison Ford.
5. (i)-(b); (ii)-(a); (iii)-(d); (iv)-(c)

Listening Activity 6

Plagiarism? What's that?

(i) (c); (ii) if a student consults one book for an assignment that's plagiarism, but if it's two books that's research; (iii) (d); (iv) (b)

Listening Activity 7

What is Biometrics?

(i) (a) Programme Director, Biosciences Institute of India (b) founder and head of Rehabilitation Bio-engineering Group (c) He has been on the team of researchers at Biometrics Department at Yale University

(ii) (a) distinguished (b) application (c) universal

(iii) (a) facial (b) retinal (c) iris (d) tone (e) dental

(iv) Banks, defence installations, research laboratories, elections, enterprise-wide network security infrastructures, government IDs.

(v) Manufacturing is not a major career option in India at present, since the field is still in the nascent stages. (However, manufacturing sectors are coming up in Gujarat and West Bengal now).

Listening Activity 8

Surface Computer

1. It is a demonstration of a new computer model, the "surface computer" which is shaped like a coffee-table, and works without a mouse and keyboard.
2. The mouse and keyboard are replaced by more natural interaction using voice, pen and touch. So it works with a touch of any of these.
3. (a) false; (b)/(c): true
4. (a) True
   (b) True
   (c) False (it allows people to manipulate images)

Listening Activity 9

Graphic Novels

1. (c)
2. The term graphic novel is generally used to describe any book in a comic format that resembles a novel in length and narrative development.
3. (b)
4. (c)
5. They associate the term "graphic novels" with content that includes violence, adult language, and provocative images.

Listening Activity 10

The Orkut Community

1. (b)
2. (c)
3. Offline chatting in orkut.
4. (a) profiles; (b) opt-out; (c) clone; (d) guideline violation
5. **It** is a kind of virus which steals users' banking details, usernames and passwords by propagating through Orkut.